

# FILE NOTATIONS

Entered in NID File .....  
Location Map Pinned .....  
Card Indexed .....✓

Checked by Chief .....  
Approval Letter 8-24-70  
Disapproval Letter .....

## COMPLETION DATA:

Date Well Completed .....  
..... WW..... TA.....  
..... OS..... PA.....

Location Inspected .....  
Bond released  
State or Fee Land .....

## LOGS FILED

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
BHC Sonic GR..... Lat..... Mi-L..... Sonic.....  
CBLog..... CCLog..... Others.....

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL & GAS

5. Lease Designation and Serial No.

20100

6. If Indian, Allottee or Tribe Name

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil  
Well ☒Gas  
Well ☐

Other

Single  
Zone ☒Multiple  
Zone ☐

2. Name of Operator

Shell Oil Company (Rocky Mountain Division Production)

3. Address of Operator

1700 Broadway, Denver, Colorado 80202

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface

1285' FNL and 1378' FEL Section 26

At proposed prod. zone

7. Unit Agreement Name

Murdock

9. Well No.

Shell-Murdock No. 1

10. Field and Pool, or Wildcat

N. Uinta Basin Area (WC)

11. Sec., T., R., M., or Blk.  
and Survey or AreaApprox. C NE/4 Section  
26-T2S-R5W

12. County or Parrish 13. State

Duchesne

Utah

14. Distance in miles and direction from nearest town or post office\*

Approximately 8 miles north of Duchesne

15. Distance from proposed\*

location to nearest  
property or lease line, ft.  
(Also to nearest drlg. line, if any)

1285'

16. No. of acres in lease

1,015

17. No. of acres assigned  
to this well18. Distance from proposed location\*  
to nearest well, drilling, completed,  
or applied for, on this lease, ft.

19. Proposed depth

13,000

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

6218 GL

22. Approx. date work will start\*

September 1, 1970

23.

## PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement

As per attached drilling prognosis and certified survey plat. - C/AO

approve, but need written statement that  
Shell owns all acreage in 660' radius and  
location results from log - PWB  
Rule C-3(c)

(2) cc: United States Geological Survey - Salt Lake City, Utah w/attachments.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

W. A. Rieder

Title

For: J. C. Howell

Division Petroleum Engineer

Date

August 21, 1970

(This space for Federal or State office use)

Permit No.

43-013-30049

Approval Date

Approved by

Title

Date

Conditions of approval, if any:

WELL NAME  
TYPE WELL  
FIELD AREA

SHELL-MURDOCK No. 1

EXPLORATORY

NORTHERN UTAH BASIN

APPROX. LOCATION (SUBJECT TO SURVEY) SW NE SEC 26 T2S R3W DUCHESE CO., UTAH

EST. G.L. ELEVATION 6140 PROJECTED TO 13,000' OBJECTIVE WASATCH

SIZE	CASING PROGRAM	LOGGING PROGRAMS	MAX DEV.	DEPTHS AND FORMATION TOPS	SPECIAL INSTRUCTIONS
	26" — CONDUCTOR —			40' ±	<p>SAMPLES: 30' — SFC TO 3500' 10' — 3500' TO 8500' 5' — 8500' TO TD.</p> <p>CORES: 500' — TAKEN AS WARRANTED</p> <p>DST'S: 10 DST'S BETWEEN 3500' &amp; TD.</p> <p>DEVIATION CONTROL DOGLEG SEVERITY NOT TO EXCEED 1 1/2" / 100' INTERVAL</p> <p>CEMENT SEE "DRLG. PROGNOSIS" FOR DETAILS</p> <p>MUD SEE "DRLG. PROGNOSIS" FOR DETAILS</p> <p><u>GENERAL</u> SFC — 3500' ± WATER 3500' — 11,300' ± LOW SOLID. 11,300' — TO WEIGHTED WATER CAS</p>
17 1/2"	13 3/8"		1°	1100' ±	
		GREEN RIVER ZONE 1 3900'			
		ZONE 2 7400'			
		ZONE 3 8800'			
12 1/4"	9 5/8"			WASATCH TRANS. 11,300'	
8 5/8" ±	7" IF NEEDED	DIL, BHC-SONIC-INT, GR-FDC, PROX-MIL, DIPMETER (FROM 3500') 2 MAN MUD LOGGING UNIT	1° / 1000' OF DEPTH	13,000'	

ORIGINATOR

DES

DATE 7/23/70

ENGINEERING APPROVAL:

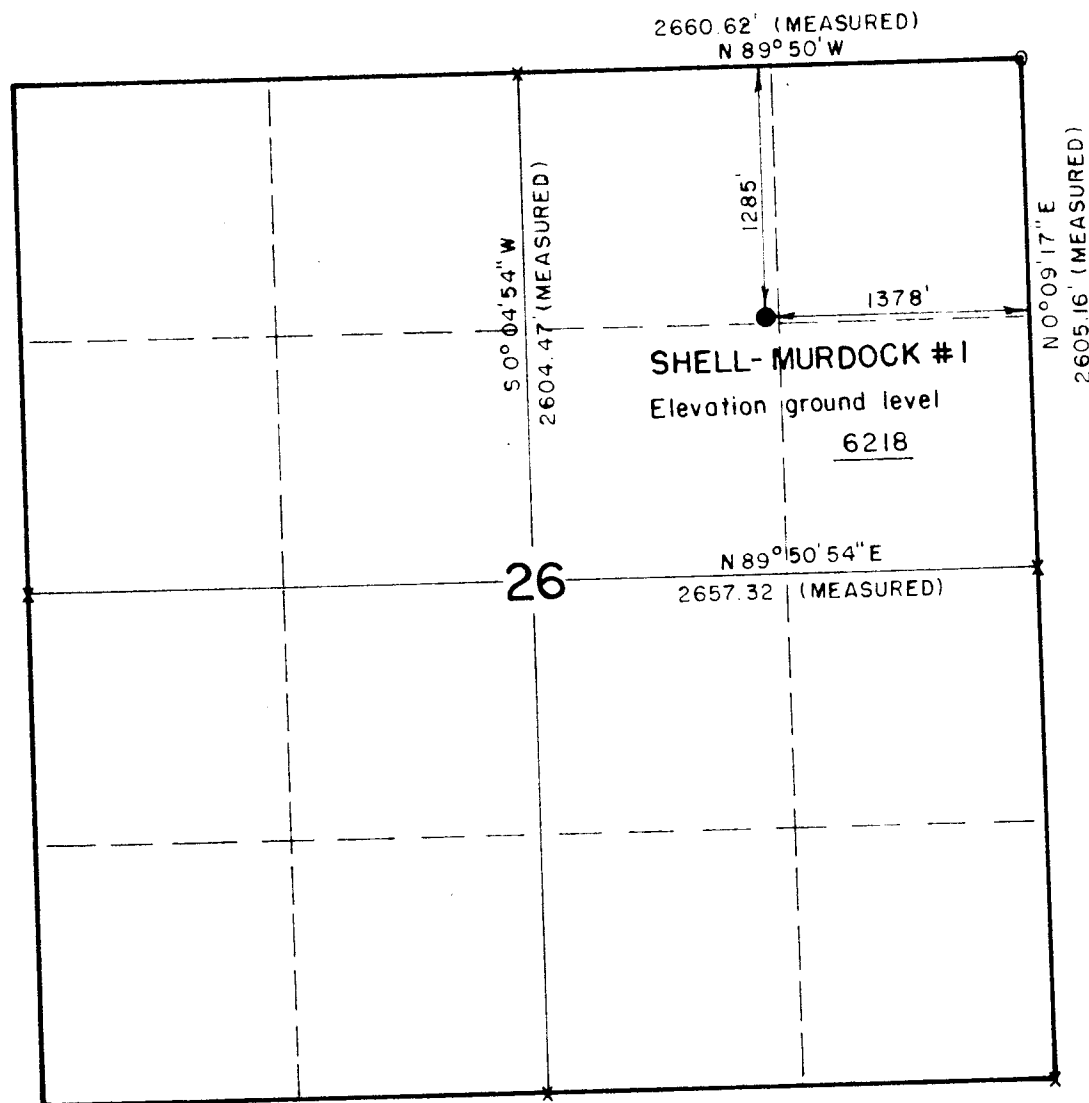
EXPLOITATION

MECH.

OPERATIONS APPROVAL:

DIV. DRILLING SUPT.

T2S, R5W, USB&M



X = CORNERS LOCATED (STONE)  
O = CORNER RE-ESTABLISHED

PROJECT  
SHELL OIL COMPANY  
WELL LOCATION AS SHOWN IN THE NE1/4,  
SECTION 26, T2S, R5W, U.S.M.  
DUCHESNE COUNTY, UTAH.



THIS PLAT WAS PREPARED FROM  
FIELD NOTES AND A SURVEY MADE BY ME UNDER MY  
SUPERVISION AND THE SAME IS TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*Gene Stewart*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO 3154  
STATE OF UTAH

UTAH ENGINEERING & LAND SURVEYING P.O. BOX Q - 110 EAST - FIRST SOUTH VERNAL, UTAH - 84078	
SCALE 1" = 1000'	DATE 19 AUGUST, 1970
PARTY GS - MS - DA	REFERENCES GLO FIELD NOTES & PLAT
WEATHER FAIR & HOT	FILE SHELL

August 24, 1970

Shell Oil Company  
1700 Broadway  
Denver, Colorado 80202

Re: Well No. Shell-Murdock #1  
Sec. 26, T. 2 S, R. 5 W,  
Duchesne County, Utah  
API No. 43-013-30049

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted. However, this approval is conditional upon this office receiving a written statement to the effect that Shell owns all the acreage in a 660' radius of the proposed well site, and, that the location results from topography. (Rule C-3(c))

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL-Chief Petroleum Engineer  
HOME: 277-2890  
OFFICE: 328-5771

This approval terminates within 90 days if the well has not been spudded-in within said period.

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation with regard to this request will be greatly appreciated.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:SD

STATE OF UTAH

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

## OIL &amp; GAS CONSERVATION COMMISSION

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

5. LEASE DESIGNATION AND SERIAL NO.

20100

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Murdock

9. WELL NO.

Shell-Murdock No. 1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Approx. C NE/4 Section

26-T2S-R5W

12. COUNTY OR PARISH

Duchesne

13. STATE

Utah

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

6218 GL, 6233 KB

19. ELEV. CASINGHEAD

15'

23. INTERVALS DRILLED BY

Total

25. WAS DIRECTIONAL SURVEY MADE

No

27. WAS WELL CORED

Yes

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other \_\_\_\_\_

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR

Shell Oil Company (Rocky Mountain Division Production)

3. ADDRESS OF OPERATOR

1700 Broadway, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1285' FNL and 1378' FEL Section 26

At top prod. interval reported below

At total depth

14. PERMIT NO.

43-013-30049

DATE ISSUED

8-24-70

15. DATE SPURRED

9-1-70

16. DATE T.D. REACHED

4-2-71

17. DATE COMPL. (Ready to prod.)

4-27-71

20. TOTAL DEPTH, MD &amp; TVD

13,880

21. PLUG, BACK T.D., MD &amp; TVD

11,200

22. IF MULTIPLE COMPL., HOW MANY\*

1

23. INTERVALS DRILLED BY

Total

ROTARY TOOLS

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

Green River-Wasatch 11,155-11,200

26. TYPE ELECTRIC AND OTHER LOGS RUN DIL/SP, Int BCHS/GR/Cal, PL/ML/Cal, SNP/GR/Cal FDC/GR/Cal, 4-arm Dipmeter, Var. Density w/comp wave display, \*

28. CASING RECORD (Report all strings set in well)

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54.5	1094	17 1/2"	900 SX	0
9 5/8"	40 & 47	9598	12 1/4"	350 SX	0

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
7 5/8"	8729	11,155	325				

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)

AMOUNT AND KIND OF MATERIAL USED

As per attachments.

33.\*

## PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)					WELL STATUS (Producing or shut-in)	
4-28-71		Flowing					Producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO	
8-11-71	24	31/64"	→	324	115	0	355	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)		
250 psi		→		As above		39.8° @ 60°F		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Well Log and History, Geologic Report and Casing and Cementing Details

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

J. A. Harshbarger

For J. C. Howell

TITLE Division Operations Engr.

DATE 9/3/71

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
			As per attachments			

SEP 7 1971  
AA-1

\* Induction log w/collar locator.

WELL  
OIL COMPANY  
DATE: 8-27-70 - 8-12-71

WELL NO. 1-26B5  
ELEV 6325 KB  
STATE UTAH

NO. UINTA BASIN  
WELL NO. 1-26B5  
ELEV 6325 KB  
STATE UTAH

OWN INTEREST DRILLING

UTAH

NO. UINTA BASIN

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
"FR" Preparing location.  
Located 1285' FNL & 1378' FEL, approximately C NE/4 Section 26-  
T2S-R5W, Duchesne County, Utah.  
Elev: 6218 GL  
13,000' Wasatch Test  
Shell Working Interest - 100%  
Drilling Contractor - Brinkerhoff Drilling Company  
Murdock No. 1 is the third exploratory test in area of major  
acreage concentration in North Uinta Basin. **AUG 27 1970**

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
MIRT. **AUG 28 1970**

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
RURT. **AUG 31 1970**

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
RURT. SEP 1 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
144/112/1/144. Drilling.  
Spudded 2:30 p.m. 9/1/70.  
Mud: 8.7 x 42 x 8 (sal 100). **SEP 2 1970**

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
461/112/2/317. Drilling. **SEP 3 1970**  
Mud: 9 x 38 x 8.8 (sal 100) (plastic vis 10) (yield point 7).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
638/112/3/177. Reaming w/new bit at 481'. Dev 1° @ 420',  
1½° @ 611'. **SEP 4 1970**  
Mud: 9 x 38 x 10.8 (sal 350) (plastic vis 8) (yield point 10).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
1102/112/7/464. Drilling.  
Ran and cmt'd 36 jts 13 3/8" at 1094' w/700 sx 1:1 poz and  
200 sx Class "G" cmt. Nipped up and tested BOP's to  
1500 psi, held ok. **SEP 8 1970**  
Mud: Water.

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
1586/112/8/484. Drilling.  
Twisted off at 1484' & left all DC's in hole. Recovered  
fish w/Bowen overshot. **SEP 9 1970**  
Mud: Water.



Murdock No. 1 2054/112/9/468. Drilling. Dev 1° @ 1916'.  
 (WC) Brinkerhoff Mud: Water. SEP 10 1970  
 13,000' Wasatch Test

Murdock No. 1 2469/112/10/415. Drilling. Dev 3/4° @ 2327'.  
 (WC) Brinkerhoff Mud: Water. SEP 11 1970  
 13,000' Wasatch Test

Murdock No. 1 3507/112/13/1038. Drilling.  
 (WC) Brinkerhoff Lost circ while drilling @ 3396'. Total fluid lost 350 bbls ±.  
 13,000' Wasatch Test Mud: 8.8 x 40 x 8.3 (LCM 8%) (plastic vis 11) (yield point 4).  
 SEP 14 1970

Murdock No. 1 3632/112/14/125. Drilling. Dev 1/2° @ 3615. SEP 15 1970  
 (WC) Brinkerhoff Mud: 8.8 x 37 x 7.6 (LCM 5%) (plastic vis 10) (yield point 3).  
 13,000' Wasatch Test

Murdock No. 1 3855/112/15/223. Drilling w/Bit #13.  
 (WC) Brinkerhoff Lost circ at 3730' (400 bbls±). Recovered w/LCM. SEP 16 1970  
 13,000' Wasatch Test Mud: 8.8 x 39 x 9 (LCM 9%) (plastic vis 13) (yield point 4).

Murdock No. 1 4059/112/16/204. Drlg. Lost 250 bbls @ ± 4059.  
 (WC) Brinkerhoff Regained circ w/lost circ materials. SEP 17 1970  
 13,000' Wasatch Test Mud: 8.8 x 37 x 8.1 (LCM 7%) (plastic visc 15) (yield point)

Murdock No. 1 4259/112/17/200. Drilling w/Bit #14. Dev 3/4° @ 4202.  
 (WC) Brinkerhoff Bit #13 Smith Type 4JS pulled at 4202'. Made 587' in 53  
 13,000' Wasatch Test hrs, 55-60,000#, 56 rpm's, 1800 psi, T<sub>4</sub>-B<sub>6</sub>. SEP 18 1970  
 Mud: 8.8 x 46 x 8.6 (LCM 11%) (plastic vis 18) (yield point 6).

Murdock No. 1 4816/112/20/557. Drilling. Dev: 1 1/4° @ 4847'.  
 (WC) Brinkerhoff Bit #14 out @ 4847'. Out 645' in 69 3/4 hrs. Jets 3-12,  
 13,000' Wasatch Test 55-60,000#, 60 rpm's, 1,500 psi.  
 Mud: 9.1 x 40 x 7.7 (sal 370) (LCM 9%) (plastic vis 18)  
 (yield point 4). SEP 21 1970

Murdock No. 1 5066/112/21/250. Drilling. SEP 22 1970  
 (WC) Brinkerhoff Mud: 9.1 x 40 x 7.5 (sal 430) (LCM 11%) (salt 7%) (ph 7.5).  
 13,000' Wasatch Test

Murdock No. 1 5170/112/22/104. Running DST #1 4970-5170.  
 (WC) Brinkerhoff Dev: 1-3/4° at 5170.  
 13,000' Wasatch Test Bit #15 Reed SCM jets 3-12. Made 323' in 36 1/2 hrs. 60,000#,  
 60 rpm, 1200 psi. Pulled for DST.  
 Mud: 8.8 x 41. SEP 23 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

5278/112/23/108. Drilling.

DST No. 1 4970-5170.

Op 5 min, ISI 90 min, Op 60 min, FSI 180 min.

Op w/immediate strong blow, GTS in 5 min.

Second flow period - opened w/moderate blow, increased to very strong in 3 mins.

Time	Gas Rates (MCF/D)
------	-------------------

8:00 a.m.	115 (Tool opened)
-----------	-------------------

8:20 a.m.	296 (Maximum)
-----------	---------------

8:55 a.m.	94 (Tool closed)
-----------	------------------

Recovered 17 bbls GCM and 6 bbls G & WCM w/trc oil.

Sample chamber contained: 825 cc's total fluid

700 cc's mud

125 cc's water

Press - 700 psi, 2.4 CF gas.

Rw = 0.1 @ 70°F (37,950 ppm NaCl)

Rm = 2.6 @ 70°F (660 ppm NaCl)

IHP 2359, IFP 318-318, ISIP 2035 (stab), FFP 394-947,

FSIP 2035 (stab), FHP 2349.

BHT - 109°F

Mud: 8.9 x 46 x 7 (sal 1450) (LCM 11%) (plastic vis 19)  
(yield point 9). SEP 24 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

5454/112/24/176. Drilling.

1 hr circ samples at 5450.

Mud: 9.0 x 42 x 7.4 (sal 200) (LCM 10%) (Oil 0) (gel 0 & 5)  
(plastic vis 17) (yield point 5). SEP 25 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

6032/112/27/578. Drilling.

Bit #17 12¼" Smith 4-JS out at 5663. 493' in 58 3/4 hrs.

1 seal gone on bearings.

Mud: 8.9 x 39 x 8 (sal 720) (LCM 15%) (plastic vis 15)  
(yield point 4). SEP 28 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

6275/112/28/243. Drilling.

Mud: 9 x 38 x 7.8 (sal 700) (LCM 12%) (plastic vis 14)  
(yield point 5). SEP 29 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

6408/112/29/133. Pulling misrun DST #2. Tester stuck at 6388 and jarred loose.

Mud: 9 x 40 x 7.2 (sal 700) (LCM 10%) (plastic vis 14)  
(yield point 5). SEP 30 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

6474/112/30/66. Running DST No. 2 6299-6474.

Bit # 17 Smith 4-JS 12¼" out at 6408. Drilled 745' in 75½ hrs. Grade B<sub>1</sub>.

Mud: 9 x 45 x 8.1 (sal 670) (LCM 10%) (plastic vis 16)  
(yield point 9). OCT 1 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

6487/112/31/13. Drilling.

DST No. 2 6299-6474

Op 7 min. Op'd w/fair blow, increasing to strong in 2 min. continued strong. No GTS. SI 90 min. Op 60 min, op'd w/fair blow, increased to strong in 2 min, decreased to fair in 8 min, increased to strong in 15 min, continued strong, no GTS. SI 180 min.

Recovered 690' G & OC mud.

Sample chamber contained 550 cc's total recovery

275 cc's oil

275 cc's mud

0.71 cf gas at 200 psig

Bottom outside recorder at 6311 (press's)

IHP 3100, IFP 141-179, ISIP 2959 (inc), FFP 179-218,

FSIP 2754 (inc), FHP 3075. Max temp 123°F.

Magna-fluxed all DC's, stabilizers, and subs.

Strapped in hole.

Mud: 9 x 47 x 8.3 (sal 600) (LCM 10%) (plastic vis 17)  
(yield point 6). OCT 3 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

7036/112/34/549. Making trip for new bit.

Bit #18 12¼" Security SS-88 out at 7036.

Made 628' in 79 hrs.

Mud: 9.2 x 42 x 6.9 (sal 660) (LCM 12%) (plastic vis 16)  
(yield point 6). OCT 5 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

7081/112/35/45. Running DST No. 3. Dev: 2½° @ 7036.

Mud: 9.1 x 44 x 6.7 (sal 630) (LCM 10%) (plastic vis 17)  
(yield point 7). OCT 6 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

7131/112/36/50. Drilling.

DST No. 3 6928-7081

Op 5 min. Op'd w/good blow, strong blow in 3 min.

No GTS. SI 90 min.

Op 75 min. Op'd w/good blow, strong blow in 2 min, increased slightly throughout.

Max rate - 4.6 MCF/D air in 75 min. No GTS. SI 225 min.

Recovery as follows:

183' (2.6 bbls) HGCM

289' (4.1 bbls) SO & HGCM

688' (9.8 bbls) O & HGCM

1022' (12.6 bbls) O, G, & WCM

Total 2182' (29.1 bbls)

Sample chamber contained:

0.55 CF gas at 675 psig

2050 cc's water (RW = 1.56 @ 57°F)

175 cc's oil

Pit mud: Rm = 2.6 @ 58°F.

680 ppm Cl

IHP 3351, IFP 109-252, ISIP 3208, FFP 252-1043, FSIP 2941, FHP 3304.

BHT - 134°F.

Mud: 9.1 x 44 x 6.7 (sal 1680) (LCM 10%) (plastic vis 17)  
(yield point 7). OCT 7 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

7337/112/37/206. Drilling.  
 DST No. 3 water from sample chamber  
 Titration = 20,900 ppm Cl  
 Mud: 9.1 x 60 x 7 (sal 1900) (LCM 13%) (plastic vis 22)  
 (yield point 18). OCT 8 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

7516/112/38/179. Drilling.  
 Mud: 9.1 x 42 x 7.0 (sal 2050) (LCM 15%). OCT 9 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

7962/112/41/446. Drilling. Dev: 2° @ 7961.  
 Bit #19 rebuilt 12¼" Smith 4JS out @ 7961. Made 655' in 86¼ hrs.  
 Mud: 9.1 x 41 x 7 (sal 2750) (LCM 10%) (plastic vis 15)  
 (yield point 6). OCT 12 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

8164/112/42/202. Drilling.  
 Mud: 9.2 x 43 x 7 (sal 2500) (LCM 11%) (Oil 3%)  
 (plastic vis 17) (yield point 7). OCT 13 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

8303/112/43/139. Tripping.  
 Bit #20 12¼" Smith 4JS out at 8303. Cut 612' in 76 hrs.  
 Mud: 9.1 x 45 x 7.1 (sal 2750) (LCM 12%) (Oil 2½%). OCT 14 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

8480/112/44/177. Drilling.  
 Mud: 9.1 x 43 x 7.3 (sal 2500) (LCM 12%) (plastic vis 18)  
 (yield point 6). OCT 15 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

8649/112/45/169. Drilling.  
 Mud: 9.2 x 43 x 7.2 (sal 2350) (LCM 10%) (Oil 1½%)  
 (plastic vis 17) (yield point 6). OCT 16 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9105/112/48/456. Drilling.  
 Mud: 9.2 x 42 x 7.4 (sal 2400) (LCM 11%) (Oil 1%)  
 (plastic vis 17) (yield point 7). OCT 19 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9300/112/49/195. Drilling.  
 Mud: 9.2 x 43 x 7.3 (sal 2250) (LCM 12%) (Oil 1%)  
 (plastic vis 18) (yield point 8). OCT 20 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9357/112/50/57. Circ for core.  
 Bit #22 12¼" Smith 4JS out at 9326'. 462' in 57 3/4 hrs.  
 Rebuilt bit condition T-6, B-6, locked.  
 Mud: 9.2 x 43 x 7.7 (sal 2200) (LCM 10%) (Oil 1%)  
 (plastic vis 19) (yield point 9). OCT 21 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9383/112/51/26. Coring. Dev: 2 3/4° @ 9357.  
 Began coring at 9357.  
 Mud: 9.2 x 44 x 7.8 (2300 ppm salt) (LCM 11%) (Oil 2%)  
 (plastic vis 18) (yield point 9). OCT 22 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9393/112/52/10. Prep to run DST #5.  
Core No. 1 9357-9393. Cut and rec'd 36'.  
 9357-9382.8 Sh, dk gry  
 9382.8-9393 Sh, blk  
 Fractures - 9357-9373 Abundant open fractures  
 (20° from vert to vert), green oil on  
 fractures, calcite filling at 9372.  
 9373-9375 Vertical fractures  
 9375-9381 Fractures less common  
 9381-9393 Moderate fracturing, pyrite  
 blebs at 9387.5  
 Mud: 9.2 x 44 x 7.8 (sal 2300 ppm) (LCM 11%) (Oil 2%)  
 (plastic vis 18) (yield point 9). OCT 23 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9490/112/55/97. Drilling. Dev: 2½° @ 9485.  
DST No. 5 9316-9393.  
 Op 5 min, op'd w/weak blow, increased to strong in 5 min. No  
 GTS. SI 90 min.  
 Op 60 min, op'd w/weak blow, increased to strong immediately,  
 continued strong throughout. GTS in 20 min. SI 180 min.  
Recovery  
 Reversed out: 20 bbls GCO (gas-cut oil)  
 dk green, waxy. Fluoresces, creamy white  
 Sample chamber contained: 1.4 cu ft gas at 275 psi  
 660 cc's oil  
Press's (outside recorder at 9322)  
 IHP 4596, IFP 204, ISIP 4507, FFP 381, FSIP 4241, FHP 4558.  
 BHT - 178°F.  
 Reamed 10½ hrs.  
 Mud: 9.2 x 45 x 8.1 (salt 1900) (LCM 12%) (Oil 1%)  
 (plastic vis 19) (yield point 9). OCT 26 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9530/112/56/40. Drilling.  
 Mud: 9.2 x 45 x 8.2 (salt 1900) (LCM 7%) (Oil 3%) OCT 27 1970  
 (plastic vis 20) (yield point 10).

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9598/112/57/68. Building mud. Lost circ and attempting to  
 regain. OCT 28 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9598/112/58/0. Conditioning hole for logs.  
 Mud: 9.2 x 43 x 7.7 (salt 900) (LCM 21%) (Oil 1%)  
 (plastic vis 18) (yield point 8). OCT 29 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch Test

9598/112/59/0. Logging.  
 Mud: 9.2 x 58 x 6.8 (sal 1,000 ppm) (LCM 25%) (Oil 1%)  
 (plastic vis 26) (yield point 14). OCT 30 1970

Murdock No. 1  
 (WC) Brinkerhoff  
 13,000' Wasatch  
 Test

9598/112/62/0. Logging. Ran logs -- list run later.  
 Made two trips to circ and condition hole.  
 Mud: 9.2 x 57 x 6.5 (sal 1,100) (LCM 25%) (Oil 1%)  
 (plastic vis 27) (yield point 14). NOV 2 1970

<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9598/112/63/0 Circ &amp; cond mud to run csg. Ran logs as follows: DIL/SP, Int BHCS/GR/CAL, PL/ML/CAL, SNP/GR/CAL, FDC/GR/CAL; 4-arm Dipmeter, Variable Density w/compressional wave display using 6-12' acoustic tool, Borehole Televiewer attempt. Results unacceptable in 12 1/4" hole. Core slicer cut following intervals: 8921-24 8537-40 8321-24 8213-16 ) 8109-12 ) Recoveries mixed in core catcher 7256-59 7215-18 5332-35 No recovery Detailed description of cores will follow later. Laid down 10 - DC's. Ran drlg assembly to circ for csg. Mud: 9.2 x 57 x 6.5 (sal 1200) (plastic visc 28) (yield point 14) (LCM 21%) (Oil 1%)</p>	<p>NOV 3 1970</p>
<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9598/112/64/0. Running 9 5/8" OD csg.</p>	<p>NOV 4 1970</p>
<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9598/112/65/0. Nippling up. Ran and cmt 230 jts (9617') 40-47# S-95 9 5/8" csg @ 9593' w/150 sx 1:1 poz, 1% CFR-2, .2% HR-4, followed by 200 sx Class "G" Neat cmt, 15% salt, 1% CFR-2 and .3% HR-4. Plug down 1:55 p.m. 11/4/70. Landed and cut off csg. Changed BOP's.</p>	<p>NOV 5 1970</p>
<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9598/112/66/0. Tripping in hole. Changed to 1500 series BOP's. Press tested blind rams to 2,000 psi, ok. Laid down 15 - 8" DC's and picked up 21 - 7" DC's. Ran in hole putting rubbers on DP.</p>	<p>NOV 6 1970</p>
<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9763/112/69/165. Prep to core. Changed to 1500 Series BOP. Press tested blind rams to 2,000 psi, ok. Laid down 15 8" DC's and picked up 21 7" DC's. Installed rubbers on DP. Press tested pipe rams and hydril to 2,000 psi. Drld plug, float collar and shoe. Raised mud weight to 10#. Mud: 10.3 x 44 x 6.9 (sal 1100) (Oil 1/2%) (plastic vis 21) (yield point 6).</p>	<p>NOV 9 1970</p>
<p>Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test</p>	<p>9775/112/70/12. Coring on Core #3. <u>Core No. 2 9763-9764.5.</u> Cut and rec'd 1.5'. Details on desc later. While cutting Core #2, lost pump pressure, pulled out, tools ok. Mud: 10.2 x 44 x 6.7 (sal 1100) (plastic vis 2) (yield point 5).</p>	<p>NOV 10 1970</p>

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9812/112/71/37. Running in w/drlg assembly.  
Core No. 2 9763.5-9765. Cut and rec'd 1.5'  
9763.5-9763.75 Marlstone, dk brn to blk.  
Orthogonal set of fractures. Both  
fracture faces lined w/calcite crystals.  
9763.75-9765 Thin bedded tan to dk brn marlstone.  
Core No. 3 9765-9812. Cut 47'. Rec'd 45'.  
Details later.  
Mud: 10.3 x 45 x 6.8 (sal 1050) (plastic vis 21)  
(yield point 6). NOV 11 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch  
Test

9812/112/72/0. Going in hole w/tooth bit.  
Core No. 3 9765-9812. Cut 47'. Rec'd 45'.  
9765-9780 Sh, lt-med brn, calc, laminated to thin  
bedded, hard, vertical fracs w/calcite  
coating, interlaminated dk brn sh, dolo,  
hd, spotty nat fluor and yellow streaming  
cut fluor.  
9780-9781 Sh, a. a., sli darker colored, organic.  
Material on bedding planes, wavy bedding  
w/very small scale cross-bedding.  
9781-9810 Sh, med-dk brn, very dk laminations, calc  
to dolomitic, small vert fracs w/calcite  
lining, spotty nat yellow-green fluor and  
cut fluor.  
9810-9812 No recovery.  
Unable to get to bottom drlg assembly. Reamed from 9600-  
9660 and pulled out dropped stabilizer. Ran back and  
worked down to 9668. Unable to rotate, pulled out, laid  
down reamer and button bits.  
Mud: 10.2 x 44 x 6.8 (sal 1130 ppm) (plastic vis 21)  
(yield point 5). NOV 12 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9812/112/73/0. Circ at 9678. Unable to get below  
9678 w/tooth bit; pulled out. Ran Schl Induction log  
w/collar locator, csg indicated ok. Ran 8 5/8" flat  
bottom junk mill to 9598, ok. Pulled and ran tooth  
bit on 6 7" DC's.  
Mud: 10.3 x 46 x 6.5 (sal 1300) (plastic vis 22)  
(yield point 5). NOV 13 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9814/112/76/2. Going in hole w/bit.  
Reamed hole w/tooth bit on 6 DC's from 9690-9812.  
Drl'd to 9814. Pulled into csg and ran back to  
bottom ok. Pulled out and ran button bit - BH reamer  
stabilizer 40' above bit. Stopped at 9695. Reamed to 9814;  
would not drill. Pulled out and left button bit in hole.  
Ran in openended and could not screw on to bit. Ran  
impression block; results inconclusive. Ran skirted magnet  
to straighten bit in hole. Ran openended DC's; unable to  
screw onto bit. Ran tooth bit on 6 DC's to cond hole.  
Mud: 10.5 x 60 x 6.1 (sal 700) (plastic vis 33) (yield point  
11). NOV 16 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch  
Test

9814/112/77/2. Reaming and cleaning hole.  
Ran tooth bit to 9812. Ran bit 1½ hrs and pulled  
out. Pumped two joints out of tight hole and bit  
wore out. Ran tooth bit on 21 DC's w/drlg jars.  
Reamed from 9640-9688.  
Mud: 10.4 x 52 x 6 (sal 1500) (plastic vis 31) (yield  
point 11). NOV 17 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/78/1 Reaming @ 9740. Reamed & cleaned out from  
9688-9814, drld 1' to 9815. Pulled into csg & ran back.  
Mud: 10.7 x 154 x 5 (sal 1300) (plastic visc 69) (yield point  
41) NOV 18 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/79/0. Running DST #5.  
Reamed and CO to bottom from 9740-9815. Circ & cond  
hole for DST.  
Mud: 10.5 x 118 x 4.7 (LCM 18%) (plastic vis 55)  
(yield point 39). NOV 19 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/80/0. Reaming.  
DST #6. 9598-9816.  
IF 10 min, immed strong blow. ISI 90 min.  
FF 120 min, immed strong blow, decreased gradually to  
weak blow. No GTS. FSI 390 min.  
Recovery: 20 bbls drlg mud (Rw = 2.32 at 77°F).  
(Rw mud = 2.2 at 80°F).  
Sample chamber contained:  
2.4 CF air at 150 psi.  
2,000 cc's mud (Rw = 2.87 at 70°F).  
Press's: (Recorder at 9546)  
LHP 5401, IFP 1063-1136 (not stab), ISIP 4893, FFP 1310-1830  
(bldg very slowly), FSIP 4627, FHP 5381.  
BHT - 161°F.  
Ran 7 7/8" bit on one 6½" OD DC. Began reaming at  
9753 - tight hole.  
Mud: 10.7 x 60 x 4.7 (sal 1400) (LCM 20%) (plastic vis 42)  
(yield point 25). NOV 20 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/83/0. WOC. Ran 7 7/8" bit and reamed  
from 9753-9766, hole tight. Reamed w/8 5/8" from 9667-  
9811. Reamed 7 7/8" from 9787-9815. Ran GR Sonic w/cal.  
Reamed w/7 7/8" from 9802-9815. Unable to keep bottom 12' of  
hole open without rotating. Ran openended DP to 9815' and  
cmt'd w/150 sx salt-sat Type "G" w/1/8#/sx Tuf-fiber.  
Completed displacement 3:40 a.m. 11/23/70.  
Mud: 10.7 x 75 x 4.6. NOV 23 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/84/0. WOC. NOV 24 1970



Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9815/112/85/0. WOC; Circ and condition at 9590.  
Ran 8 5/8" bit to 9590. Circ cmt contaminated mud.  
Mud: 10.6 x 70 x 4.8. NOV 25 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

9912/112/90/97. Drilling. Drld cmt from 9673-9815.  
Ran three mills on junk. Ran bit and baskets.  
Drld to 9830. Ran bit to drill. NOV 30 1970  
Mud: 10.6 x 50 x 4.8.

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,022/112/91/110. Drilling.  
Bit #39 4JS 192' in 39 hrs. DEC 1 1970  
Mud: 10.6 x 46 x 4.7

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,080/112/92/58. Tripping.  
Bit #39 4JS out at 10,080'. Made 250' in 59½ hrs.  
Bit weight 50,000#. 50 RPM. DEC 2 1970  
Mud: 10.5 x 48 x 4.8.

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,137/112/93/57. Drilling. Strapped DP on trip  
for Bit #40.  
Mud: 10.7 x 50 x 4.7 (sal 1400) (LCM 10%) (plastic vis 33)  
(yield point 6) DEC 3 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,151/112/94/14. Running in w/core bbl.  
Mud: 10.6 x 47 x 4.8 (sal 1450) (LCM 8%) (plastic vis 31)  
(yield point 7) DEC 4 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,229/112/97/78. Running DST #6.  
Spot reamed w/core bbl from 9791-10,151 (360')  
Core #4 - 10,151-10,207. Cut 56', rec'd 55'.  
10151-53 Sh, dk, gry, sli calc, hard  
10153-54 Ss, lt gry, vfg-fg, very sli calc, hard,  
tite, no vis por, some spotty nat fluor  
and pale yellow cut fluor  
10154-55 Sh, dk gry, hd, calc  
10155-65 Siltst grading to ss a.a., some spty nat fluor,  
occ white cut fluor  
10165-66 Sh, blk, calc  
10166-70 Ss a.a., vfg, some weak cut fluor  
10170-76 Sh, blk, calc  
10176-77 Siltst, gry, hd, siliceous  
10177-81 Sh, blk, calc  
10181-82 Sh, a.a., w/ostracods  
10182-84 Sh, a.a., w/o ostracods  
10184-85 Sh, a.a., w/ostracods  
10185-206 Sh, dk gry to blk, sli calc to cal, w/occ  
siltst stringers w/no shows.  
10206-07 No Recovery  
Note: Fracture pattern mainly vertical and primarily in  
the shale sections. DEC 7 1970  
Ran mill tooth drlg bit and reamed from 9904-10,207 (303').  
Drld to 10,229 and pulled for DST No. 7.

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test

10,229/112/98/0. Reaming at 9819.  
DST No. 7 9598-10,229 (Pkr. set in casing).  
Op 10 min - op w/fair to good blow (5" H<sub>2</sub>O).  
Increased to strong blow (12" H<sub>2</sub>O) in 1 min. Continued  
strong throughout. No GTS.  
SI 90 min.  
Op 120 min - op w/fair blow (3" H<sub>2</sub>O). Increased to strong  
blow (12" H<sub>2</sub>O) in 2 min. No GTS.  
SI 300 min.  
Recovery: 35 bbls GCM w/trace oil.  
(Sample chamber contents and max temperature will be  
reported later.)  
Pressures (Recorder @ 9587): IHP 5483, IFP 699-827,  
ISIP 5039 (inc.), FFP 1127-1798, FSIP 4869 (inc. slightly),  
FHP 5440.  
Ran milled tooth bit to shoe of 9 5/8" csg. Cond mud  
and ran to 9677. Reamed from 9677-9819.  
Mud: 10.8 x 70 x 5 (sal 2000) (LCM 9%) (plastic vis 39)  
(yield point 15) DEC 8 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,229/112/99/0. Reaming at 10,163.  
Addition to DST No. 7 reported yesterday:  
Sample chamber contained: DEC 9 1970  
0.53 CF gas at 500 psig  
1700 cc's mud (Rm = 0.19 at 57°F)  
No wtr  
Max Temp - 164°F  
Reamed from 9819-10,163 (344'). Lost approx 300 bbls mud  
last 24 hrs.

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,262/112/100/33. Drilling.  
Mud: 10.8 x 61 x 4.8 (sal 2,000) (LCM 12%) (plastic vis 40)  
(yield point 13) DEC 10 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,364/112/101/102. Drilling.  
Mud: 10.9 x 59 x 4.7 (sal 1800) (LCM 10%) (plastic vis 35)  
(yield point 11) DEC 11 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,523/112/104/159. Coring.  
Drilled to 10,495. Pulled out and magnafluxed all DC's and  
core bbl. Laid down 5 bad DC's. Reamed with core bbl  
from 9990-10,495 (505'). Gas cut mud @ 10,519'.  
Bit #43 8 5/8" Smith 4JS cut at 10,495. Cut 247' in 61½ hrs.  
Mud: 11.1 (in) 10.2 (out) x 71 x 4.8 (sal 2100) (LCM 10%)  
(plastic vis 36) (yield point 13) DEC 14 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,548/112/105/25. Circ and cond mud.  
Lost partial circ while coring at 10,548. Pulled into  
shoe of 9 5/8" csg. Mixed mud and lost circ material;  
regained circ. Total mud lost - 400-500 bbls.  
Mud: 11.1 x 84 x 4.4 (sal 1500) (LCM 16%) (plastic vis 52) .  
(yield point 16) DEC 15 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,573/112/106/25. Drilling.  
Core No. 5 10,495-10,548. Cut and rec'd 53'.  
10,495-10,496.5 Sltst, med-lt gry, calc, very hd, tite,  
two fractures: one vert; one 80° from  
hor; both partly healed w/calcite  
10,496.5-10,503.5 Sh, interbedded, dk gry grn, med gry and  
blk, dolo, freq pyritic, bored and churned,  
occ 75° (from hor) partly healed fracs  
10,503.5-10,504.0 Sltst, med gry, calc, abund carb mat, 70°  
(from hor) frac partly healed  
10,504.0-10,504.8 Sh, dk gry to blk, calc, abund ostracods,  
abund 1/2" to 1" shell fragments  
10,504.8-10,509.0 Sh, a.a., occ large shells, laminated,  
partly healed fracs, 45° to 70° from hor,  
bleeding gas slightly  
10,509.0-10,511.0 Silty sh, med gry, abund ostracods,  
fractures: one vert, one 60° from hor,  
partially calcite filled  
10,511.0-10,514.0 Sh, very dk brn to dk gry, dolo, abund  
ostracods, occ shell frags (1/2" to 1")  
10,514.0-10,524.0 Interbedded sh & sltst, med gry to blk,  
calc, occ fracs (45° to 60° from hor),  
freq ostracods, pale grn cut fluor in  
sltst, blk sh inclusion @ 10,524 w/minor  
faulting  
10,520-10,524 Bleeding gas slightly  
10,524-10,530 Interbedded sh & sltst, grn-gry to med  
gry, dolo, pyritic, vert fracs, bleeding  
gas slightly  
10,530-10,531 Ss, wh to gry, lower fine, calc, tite,  
N.S.  
10,531-10,532 Ss, lower fine to coarse, graded bedding,  
very poor sorting, approaches conglomerate,  
hairline 45° fractures, N.S.  
10,532-10,535 Interbedded sltst and silty sh, gry to  
gry-grn, sli calc, pyritic, fractures  
(70° to 90° from hor), bleeding gas  
slightly  
10,535-10,548 Sh, interbedded med gry & blk, calc,  
pyritic, freq ostracods, occ thin fracs  
(45° to 80° from hor), bleeding gas  
slightly

Note: No free oil  
No natural stain  
No vis porosity

Ran drlg assembly. Washed and reamed from 10,540-10,548.  
Mud: 11.2 x 70 x 3.6 (sal 1000) (LCM 16%) (plastic vis 42)  
(yield point 14) DEC 16 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,616/112/107/43. Coring.  
Drilled to 10,582. Pulled and ran core bbl. Washed and  
reamed w/core bbl 10,572-10,582. On Core #6 cut 32'  
in 10 hrs.  
Mud: 11.3 x 68 x 4 (sal 950) (LCM 15%) (plastic vis 48)  
(yield point 15) DEC 17 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,646/112/108/30. Coring.  
Core No. 6 10,582-10,642. Cut and rec'd 60'.  
Details later.  
Mud: 11.3 x 78 x 4.1 (sal 900) (LCM 18) (plastic vis 51)  
(yield point 17) DEC 18 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,765/112/111/119. Tripping core bbl.  
Core No. 6 10,582-10,642. Cut and rec'd 60'.  
10,582-10,584.5 Sh, blk, and silt, dk gry, lam, abundant  
ostracods, occ fish scales, and other fossils  
in sh, calc, grainstone of ostracods at  
84.5, calcite filled frac at 84-85 (vert)  
10,584.5-10,590 Ls, shaley, occ ostracod packstone, calcite  
filled vert frac w/yellow cut fluor. occ  
silty, med gry-brn, fluor grn-yellow,  
predom oolitic ls at 88-89.  
10,590-10,599 Silt, med dk gry, calc, calcite filled frac,  
occ claystone stringers, numerous frac.  
10,599-10,608 Sh, dk brn, dolo-calc, ostracods, pyritic  
10,608-10,615 Silt, med-lt gry, calc, claystone stringers,  
lam.  
10,615-10,621 Silt, ss & sh interbedded, med dk-lt gry,  
abundant carb fragments, dolo, calc, bored  
and churned, frac'd  
10,621-10,628 Lam med gray silt, blk sh, faint cut fluor  
10,628-10,639 Silt, med gry w/grn claystone stringers,  
bored and churned, occ ss stringers, frac'd  
10,639-10,642 Sh, v dk brn, silt, med gry, calc  
Core No. 7 10,642-10,647. Cut and rec'd 5'.  
10,642-10,643 Sh, dk brn, calc, abundant ostracods,  
packstone, calcite lined vert frac 6" long,  
faint milky cut fluor on frac face.  
10,643-10,644 Sh, dk brn-blk, v carb, grading to wacky-  
stone, calc-dolo.  
10,644-10,646 Sh, dk brn, fissile, dolo  
10,646-10,647 Sh, dk brn, packstone, calcite lined vert  
frac 8" long, faint milky cut fluor on  
fracture face DEC 1 1970

(Cont'd)

(Cont'd)

Core No. 8 10,647-10,706. Cut and rec'd 59'.

10,647-10,651	Silt, sh, dk brn-gry, interbedded carb mat, calc
10,651-10,652	Sh, dk brn, calc-dolo
10,652-10,660	Silt, lt gry, calc-dolo, well cemented
10,660-10,661	Silt & sh, grading to dk gry, sh, dolo
10,661-10,662	Sh, dk gry, churned carb mat, dolo
10,662-10,665	A.a., plant impression
10,665-10,668	Silt, gry, interbedded and churned blk carb mat, ostracods, dolo
10,668-10,669	Sh, dk brn, interbedded blk carb mat, calc
10,669-10,671	Sh, blk, carb, calc-dolo
10,671-10,676	Sh, dk brn, w/interbedded and churned blk carb mat, calc-dolo, ostracods
10,676-10,682	A.a., w/interbedded lams of blk carb sh
10,682-10,683	Sh, dk brn, vert calcite healed fracture 10" long, calc
10,683-10,686	A.a., slightly calc
10,686-10,692	Sh, blk, ostracods, calc
10,692-10,694	Sh, blk and brn interbedded, calc-dolo
10,694-10,704	Silt, gry, calc, well cem, no depositional structure
10,704-10,705	A.a., grading to sh, gry, and dolo
10,705-10,706	Sh, gry, dolo
Mud: 11.3 x 58 x 4.2 (sal 1100)	DEC 21 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,812/112/112/47. Cutting Core No. 10.

Core No. 9 10,706-10,765. Cut and rec'd 59'.

10,706-10,707	Silty sh, lt gry, sli calc, hd
10,707-10,708	Claystone, grn-gry, dolo, carb
10,708-10,711	Silty sh, lt gry, sli calc, hd
10,711-10,713	Claystone, gry dolo, carb
10,713-10,718	Sh, dk gry-blk, calc, carb
10,718-10,719	Silt, dk gry, v calc, carb
10,719-10,720	Silty sh, dk gry, mottled
10,720-10,721	Sh, blk, grades to gry silt
10,721-10,725	Silt, shaley, gry-lt gry, calc, carb
10,725-10,727	Sh, gry, grades to silty sh
10,727-10,731	Silt, shaley, lt gry
10,731-10,733	Claystone, brn-gry, dolo, carb
10,733-10,734	Sh, blk, bored and churned
10,734-10,735	A.a., w/lt brn, sh lams
10,735-10,737	Sh, dk brn to blk, silty, calc
10,737-10,744	Sh, lt gry, silty, sli calc to dolo
10,744-10,747	Sh, gry, calc to dolo
10,747-10,748	Sh, silty, lt gry
10,748-10,759	Silt, shaley, lt gry, hd, calc
10,759-10,763	Sh, blk, interbedded w/silt, lt gry, sli calc, carb
10,763-10,764	Sh, blk, sli calc
10,764-10,765	Sh, blk to dk brn w/interbedded brn silty strks

Note: No shows in core.

Mud: 11.3 x 80 x 4.2 (sal 1,000) (LCM 12%) (plastic vis 48)  
(yield point 13) DEC 22 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,838/112/113/26. Cutting Core No. 11.  
Core No. 10 10,765-10,822. Cut and rec'd 57'.  
10,765-10,766 Sh, silty, dk brn, churned  
10,766-10,768 Sh, gry-brn, sli dolo to calc, carb  
10,768-10,770 A.a., bleeding gas slightly  
10,770-10,774 Sltst, dk gry to gry, calc  
10,774-10,775 Claystone, grn-gry, mottled, dolo, silty  
10,775-10,776 A.a., grading to lt gry sltst  
10,776-10,784 Sltst, lt gry, calc, carb mat, hd  
10,784-10,786 A.a., w/thin dolo blk sh lams and carb mat  
10,786-10,787 Sh, dk brn, w/blk calc sh lams  
10,787-10,788 Sltst, shaley, lt gry, calc  
10,788-10,790 A.a., w/thin dk brn sh lams  
10,790-10,791 Sltst, gry, calc, carb  
10,791-10,792 A.a., w/dk brn to blk sh interb  
10,792-10,793 Sltst, lt gry, dolo.  
10,793-10,794 A.a., w/interb dk gry sh  
10,794-10,796 Sltst, lt gry, calc  
10,796-10,798 A.a., w/abund carb lams  
10,798-10,799 Sh, dk brn to blk, silty, carb  
10,799-10,800 A.a., grading to sltst, lt gry  
10,800-10,801 Sltst, lt gry, calc, interb w/blk carb sh  
10,801-10,802 Sh, silty, dk brn to blk, dolo, carb  
10,802-10,803 Sh, gry, silty, mottled  
10,803-10,806 Sltst, gry to lt gry, interb w/sh, dk gry, calc  
10,806-10,808 Sh, silty, dk brn to blk, sli dolo to calc, carb  
10,808-10,816 Sh, dk brn, interb w/sh, blk, calc  
10,816-10,817 A.a., grading to sltst, gry-brn, carb, calc  
10,817-10,818 Sltst, gry-brn, w/fine lams sh, blk, calc, carb  
10,818-10,819 Sh, very silty, gry, calc, carb  
10,819-10,821 A.a., mottled w/brn silty streaks  
10,821-10,822 Sh, dk brn, dolo, w/blk sh lams, carb and gray calc silty streaks

Note: No shows in core.

Sltsts very well cmt and tite

Mud: 11.4 x 65 x 4.2 (sal 1500) (LCM 18%) (plastic vis 38)  
(yield point 12) DEC 23 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

10,882/112/114/44. Tripping in w/core bbl.  
Core No. 11 10,823-10,882. Cut 59', rec'd 58'.  
(Details later)  
Mud: 11.6 x 61 x 4 (sal 1600) (LCM 19%) (plastic vis 26)  
(yield point 7) DEC 24 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

11,091/112/118/209. Cutting Core No. 12.  
Core No. 11 10,822.5-10,882.5. Cut 60' - rec'd 58'.  
10,822.5-10,824 Sltst, gry, very calc, interb w/blk  
sh lams, hd, tite, no shows.  
10,824-10,834 Sh, med dk brn-blk, calc, hd, sli  
silty, thin bedded  
10,834-10,835 Sh, a.a., spotty nat fluor, no cut fluor.  
10,835-10,836 Sh, a.a., no fluor  
10,836-10,854 Sh, gry to dk gry to blk, sli calc to  
calc, carb, 36-40 fissile, calcite  
filled vertical fracture @ 10,848  
w/faint yellow nat fluor and pale yellow  
green cut fluor  
10,854-10,880.5 Sh, gry-brn to blk, silty, sli calc to  
calc, 67-70 fissile  
10,880.5-10,882.5 No rec.  
Drld w/Bit #44 rerun from 10,882-11,052 - (170')  
Began coring at 11,052.  
Bit #44 8 5/8" Smith 4JS out at 11,052 - cut 204' in  
70½ hrs.  
Mud: 11.7 x 72 x 5 (sal 1800) (LCM 20%) (plastic vis 43)  
(yield point 18) DEC 2 8 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

11,110/112/119/19. Mixing mud and lost circ material.  
Core No. 12 11,052-11,110. Cut and rec'd 58'.  
Details later.  
Ran drilling assembly to 11,110; unable to maintain  
full circ. Pulled to shoe of 9 5/8" csg.  
Lost approx 250 bbls mud.  
Mud: 11.8 x 72 x 5 (sal 1500) (LCM 20%)  
(plastic vis 40) (yield point 17) DEC 2 9 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

11,143/112/120/33. Drilling.  
Established full circ. Mixed mud. Cond circ system  
while in csg. Ran back to 11,110 and drld ahead.  
Core No. 12 11,052-11,110. Cut and rec'd 58'.  
11,052-11,057 Sh, gry-grn, silty in part  
11,057-11,061 Sh, a.a., sli calc to calc  
11,061-11,064 Sh, lam gry-grn and dk gry, calc  
11,064-11,067 Sh, blk-dk gry, fossiliferous, 8" vert  
healed fracture at 65, no stain or fluor  
11,067-11,068 Sh, lt gry, calc  
11,068-11,071 Sh, dk gry, v sli calc, fossiliferous  
11,071-11,072 Sh, a.a., sli sdy, calc  
11,072-11,076 Ss, gry-grn, vf gr, calc, shaley, frequent  
ostracods, tite, N.S.  
11,076-11,078 Sh, grn, calc, carb  
11,078-11,080 Ss, gry-grn, vf gr, calc, shaley, tite,  
N.S.  
11,080-11,088 Sh, gry-grn, sli calc, silty, 7" vert  
healed fracture at 81, no stain or fluor  
11,088-11,090 Ss, gry-grn, vf gr, calc, shaley, tite,  
N.S.  
11,090-11,092 Sh, gry-grn, sli calc  
11,092-11,097 Sh, gry, calc, silty  
11,097-11,106 Ss, gry, vf gr, argil, calc, lam w/sh,  
dk gry, calc in 1/8" to 1" laminations  
11,106-11,108 Sh, gry, sli calc  
11,108-11,109 Sh, dk gry-blk, silty, calc  
11,109-11,110 Sh, gry, calc, carb  
Mud: 11.7 x 68 x 4.2 (sal 1300) (LCM 20%) (plastic vis 47)  
(yield point 22) DEC 30 1970

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'

11,161/112/121/18. Circ well through choke.  
Well kicked while drlg at 11,161. Closed well in.  
Circ mud weights at report time - 12.6 on DP,  
11.3 on annulus.  
Mud: 12.6 x 73 x 3.3 (sal 1800) (LCM 25%) (oil 8%)  
(plastic vis 50) (yield point 19) DEC 31 1970

Murdock No. 1  
(WC) Brinkerhoff.  
13,000' Wasatch Test  
9 5/8" csg at 9598'

11,161/112/125/0. Circ through choke.  
Well was dead 4 hrs 12/31/70. Unable to maintain full  
circ through chk. Could not kill well with 12.6# mud and  
raised wt to 13.5#. Well died. Pulled 3 stands to 10,860;  
DP wet. Installed circ head and rebuilt mud volume.  
Circ until well died. Pulled 15 stands inside csg; unable  
to circ. Well began flowing. SI to build mud volume.  
Mud: 13.3 x 72 x 3.5 (sal 1900) (LCM 29%) (Oil 14%)  
(plastic vis 56) (yield point 25). JAN 4 1971



Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/126/0. Mixing mud volume.  
Killed well with 13 to 13.5# mud. Opened BOP's. Unable to  
maintain full circ. Cleaned pits. Mixed new mud volume.  
Mud: 13 x 71 x 4.5 (sal 1000) (LCM 30%) (oil 2%)  
(plastic vis 40) (yield point 11). JAN 5 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9,598'

11,161/112/127/0. Working DC string shots.  
Ran DP w/bit to 9980. Attempted to CO inside DP; unable  
to get below 9460. Ran DC perf shots and unable to get  
below 7,000'. JAN 6 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/128/0. Mixing mud to control well.  
Ran bit to 10,450'. Perf shots to 9090, shot DP  
at 9090. JAN 7 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/129/0. Pulling DP. Bit at 3210.  
Pumped 150 bbls 12.5#/gal mud through DP perfs.  
400 bbls down annulus to control flow. JAN 8 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/132/0. Circ at 10,800. Pulled DP.  
Pumped 100 bbls mud down csg. Closed blind rams.  
Installed rotating head. Opened blind rams. Well on  
vacuum. Ran bit without jets to 6078. Pumped 200  
bbls 12.5# mud without LCM. No returns at sfc. Circ  
with bit at 9575. Lost all returns after 7 hrs with  
12.4-12.5# mud. Regained circ with 12.3# mud. Lost  
250 bbls mud last 15 hrs.  
Mud: 12.6 x 75 (in) 12.4 x 109 (out). JAN 11 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/133/0. Pulling bit to run 7 5/8" liner.  
(Addition to wire of 11/3/70)  
Sidewall core slices obtained on first logging run are  
described as follows:  
7215-18 (Recovered approx 2 feet)  
Oil shale, finely laminated, lt brown, calcareous, indurated  
very kerogenous, silty, pyritic, interbedded with sandy  
layers 1" to 2" thick, lt brn, pyritic, vf gr to silt,  
vertical fractures w/oil stain, some bleeding oil or oil  
filled.  
7256-59 (Recovered approx 2 feet) JAN 12 1971  
a.a.

(Cont'd)

(Cont'd)

8109-12 or 8213-16 (Recoveries (1) & (2) mixed in core catcher  
(1) Full Recovery

Limestone (mudstone), lt gry, to black and brown, thinly bedded, laminated, hard, burrowed, very kerogenous, thin beds of fossils and clasts, vertical fractures (some w/fine calcite crystals).

(2) (Recovered 2 feet)

Limestone (mudstone), brown to dk gry, thinly bedded to laminated fine crystals of pyrite in pockets, hard, kerogenous (disseminated and along stylolites), silty, some quartz blebs near top, vertical fracture (up to 1/16" wide and partially filled with calcite).

8321-24 (Recovered 1.5 feet)

Limestone (mudstone) brown to dk gry, thinly bedded, hard, kerogenous, pyritic, slightly fossiliferous (ostracods), vertical fractures (hairline, but open).

8537-40 (Recovered 2.5 feet) (TGR3 Marker)

Claystone (mudstone), greenish gray, thinly bedded, hard, dolomitic, silty, pyritic, horizontal alignment of organic material, calcite filled vertical fractures near top.

8921-24 (Recovered 1.5 feet)

Limestone (mudstone), brown to lt gry, hard, dense, very silty, burrowed, some filled mud cracks, (shallow tidal flat deposit).

Ran bit to TD. Circ and cond'd to run liner.

Mud: 12.4 x 82 x 4.8 (plastic vis 56) (yield point 32)  
(gels 2&3). JAN 12 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'

11,161/112/134/0. Changing liners in pumps.  
Pulled bits. Ran and cmt 56 jts (2426') 33.04#  
S-95 FJ hyd 7 5/8" liner at 11,141. Liner hanger at  
8715. Cmt'd w/325 sx Class "G", .4% HR-4, and 1%  
CFR-2. Last 150 sx w/1/4# Flocele/sx cmt. 15-16# slurry.  
Cmt in place 12:15 a.m. No circ during operation. JAN 13 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'  
7 5/8" Liner at 11,141'

11,161/112/135/0. Prep to sqz liner lap.  
Changed liners in pump. Ran 8 5/8" bit to top of  
liner - no cmt. Pulled out and ran Schl temp survey -  
indicated top of cmt at 9800'. JAN 14 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" Csg at 9598'  
7 5/8" Csg at 11,141'

11,161/112/136/0. Circ LCM at 8433.  
Laid down 25 stands 4 1/2" DP. Picked up 9 4 3/4" OD DC's.  
Set Halco RTPS sqz tool at 8526. Formation broke down  
at rate of 5 B/M at 1500 psi. Mixed and pumped in 150 sx  
Class "G" cmt with .4% HR-4 and 1% CFR-2. Displaced with  
130 bbls drilling fluid. Max pmpg press 900 psi, final  
press 0. Cmt in place 9 p.m. 1/14/71. Pulled sqz tool.  
Ran drilling assembly to 8433. Installed DP rubbers on every  
other joint. JAN 15 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
9 5/8" csg at 9598'  
7 5/8" liner at 11,155'

11,175/112/139/14. Circ hole clean.  
Drld hd cmt from 8496-top of liner. Press tested liner  
lap to 2000 psi for 15 mins, ok. Pulled out and laid  
down (16) 7" DC's. Ran 6 1/2" bit and (21) 4 3/4" DC'.  
Picked up 81 jts 3 1/2" DP with rubbers on every other joint.  
Drld cmt out of liner hanger. Drilled floating shoe; no  
cmt below shoe of liner. Circulate and condition mud  
6 hrs. Pulled and picked up core bbl; unable to circ.  
Core bbl plugged. Pulled and ran 6 1/2" bit to clean up  
circulating system.

Note: Corrected depth of 8 5/8" hole at 11,161 is  
11,175. Liner hanger at 8729, liner shoe at 11,155.

Mud: 12.5 x 70 x 5.6 (sal 600) (Oil 1%) (P.V. 41)  
(Y.P. 9) JAN 18 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" csg liner at  
11,155

11,196/112/140/21. Cutting Core No. 13.  
Mud: 12.2 x 66 x 5.8 (sal 650) (Oil 2%) (P.V. 38) (Y.P. 14)  
JAN 19 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" csg liner at  
11,155'

11,212/112/141/16. Running DST 8.  
Core No. 13 11,175-11,212. Cut and rec'd 37'.  
11,175-11,181 Sh, blk, sli calc  
11,181-11,189 Sh, blk, very calc, numerous fossils, some  
fractures, fair to good slow cut  
11,189-11,199 Sh, blk, slickenside, few fossils, slow  
cut 93-95  
11,199-11,200 Sh, blk, pyrite nodules, slickenside, calc  
11,200-11,203 Sh, blk, fossils and wood fragments,  
slickenside  
11,203-11,207 Ls, blk, fossil hash, gastropods, fault  
plane slickenside  
11,207-11,208 Sh, blk, calc, fossils  
11,208-11,209 Sh, a.a. w/1" coal bed  
11,209-11,210 Sh, blk, brn streak, fossils (gastropods)  
11,210-11,212 Sh, blk, crushed and broken  
Mud: 12.7 x 75 x 5.8 JAN 20 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" csg liner at  
11,155'

11,212/112/142/0. Circ and cond hole for core.  
DST No. 8 11,155-11,212

6000' water cushion

Packer in liner @ 11,127

3/4" bottom hole choke

Op 9 min. Op w/weak blow. Inc to strong blow in 3.5 min.  
SI 111 min.

Op 96 min. Op w/fair blow. Inc to strong blow in 3 min.  
WCTS in 91 min. No GTS.

SI 287 min.

Reversed Out: 72 bbls very gassy oil

Chamber: 3000 psig

900 cc oil

39.8° API @ 60°F

Pressures: Recorder @ 11,153 - IHP 7979, IFP 2992,  
ISIP 7459, FFP 4058, FSIP 7302, FHP 7905

Max Temp = 230°F

JAN 21 1971

Mud: 13.2 x 67 x 5.9 (sal 700) (oil 3%) (P.V. 36) (Y.P. 13)

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" csg liner at  
11,155'

11,271/112/143/59. Cutting Core No. 14.

Mud: 13.3 x 63 x 6.1 (sal 700) (Oil 2%) (P.V. 39) (Y.P. 12)

JAN 22 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,452/112/146/181. Drilling.

Core No. 14 11,212-11,272. Cut and rec'd 60'.

11,212-15 Sh, blk, coaly, w/twigs and wood frags.

11,215-20 Sh, blk, calc, sli coaly.

11,220-21 Ls, blk, calc, very arg., ostracods calcite  
lined vert frac, no fluor or cut on fracture.

11,221-27 Sh, blk, very calc, abundant ostracods

11,227-28 Ls, gry to blk, very finely crystalline,  
trc fluor.

11,228-30 Sh, blk, sli calc.

11,230-31 Ls, shaley, w/abund ostracods.

11,231-45 Sh, blk, very calc, micaceous, fossiliferous.

11,245-50 Ls, very finely crystalline, sli shaley  
becoming more shaley at base.

11,250-52 Sh, blk, calc, pyritic.

11,252-53 Ls, dense, gry.

11,253-54 Sh, blk, fossiliferous, and Ls a.a.

11,254-57 Sh, clac, pyritic, becoming more fossiliferous.

11,257-58 Ls, dk gry, dense.

11,258-59 Sh, blk, very calc.

11,259-62 Ls, gry, very finely crystalline to dense.

11,262-63 Sh, blk, very calc.

11,263-68 Ls, gry, fine to very finely crystalline,  
siliceous, calcite filled fractures w/very  
faint cut fluor.

11,268-70 Sh, dk gry, very calc

JAN 25 1971

11,270-72 Ls, gry, finely crystalline, siliceous.

Mud: 13.4 x 61 x 5.4 (sal 850) (Oil 1%) (P.V. 39) (Y.P. 11).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,520/112/147/68. Drilling.  
Mud: 13.4 x 60 x 5.8 (sal 850) (Oil 1%) (P.V. 37) (Y.P. 11).  
JAN 26 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,554/112/148/34. Cutting Core No. 15.  
Drld to 11,542 - pulled for core.  
Bit #54 Christensen diamond out at 11,542 - drilled 271'  
in 92½ hrs. Footage/hr - 2.9'.  
Mud: 13.8 x 66 x 4.8 (sal 800) (Oil 2%) (P.V. 40) (Y.P. 15).  
JAN 27 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,580/112/149/26. Running DST No. 9. JAN 28 1971  
Core No. 15 11,542-11,580. Cut and rec'd 38'. Details later.  
Mud: 14 x 60 x 4.6 (sal 900) (Oil 1%) (P.V. 35) (Y.P. 10).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,580/112/150/0. Circ and cond hole for core.  
Core No. 15 11,542-11,580. Cut 38'. Rec'd 37'.  
11,542-11,542.5 Silt, dk gry, calc, N.S.  
11,542.5-11,544.5 Sh, silty, blk, calc, pyrite inclusions  
11,544.5-11,547 Sh, dk gry, calc, mica ostracods  
11,547-11,563 Sh, blk, calc, wood and plant frags  
11,563-11,567 Sh, gry, calc, fossils  
11,567-11,579 Sh, blk, calc, fossils  
11,579-11,580 No recovery  
Note: Coaly strks through most of core.  
DST No. 9 11,155-11,222. Details later. JAN 29 1971  
Ran mill tooth drlg bit to cond hole for core.  
Mud: 13.8 x 70 x 4.8 (sal 1,000) (P.V. 41) (Y.P. 14) (Oil 2%).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

11,676/112/153/96. Coring on Core #19.  
DST No. 9 - 11,155-11,222. (Johnston straddle)  
Pit mud: Rm = 1.8 at 64°F. 15/16" BH chk. 6,000 WC.  
Op 25 min. Op w/weak blow, inc to strong (12" H<sub>2</sub>O) in  
10 min. SI 180 min.  
Op 120 min. Op w/weak blow, strong blow in 1 min.  
GTS in 75 min TSTM. SI 360 min.  
Recovery: 15.5 bbls oil (39.7° API at 60°F)  
66 bbls wtr cushion. FEB 1 1971  
Sample Chamber: 1425 psig  
1050 cc's oil (39.7° API at 60°F.)  
Press's: Recorder at 11,216!  
IHP 8372, IFP 2923, ISIP 7383, FFP 3253, FSIP 7417, FHP 8344.  
Max temp - 197°F.

(Cont'd)

(Cont'd)

Cut Cores #16, 17, & 18.

Core No. 16 11,580-602, Cut 22' rec'd 19'

11,580-85 Sh, blk, calc, pyritic wood and plant frags,  
bleeding gas slightly  
11,585-87 Sh, a. a., w/2' & 4" calcite lined near vertical  
fractures  
11,587-92 Sh, a. a., bcmg dk gry, very calc, hard  
11,592-93 Sh, dk gry, calc hard  
11,593-94 Sh, a. a., w/3" calcite lined near vertical  
fracture  
11,594-99 Sh, a. a.  
11,599-602 No recovery

Core No. 17 11,602-624, Cut and rec'd 22'

11,602-17 Sh, dk gry, calc, wood and plant frags, hard  
11,617-18 Sh, a.a., w/calcite lined vert. fracture  
11,618-24 Sh, a.a., bcmg gry

Core No. 18 11,624-11,653, Cut and rec'd 29'

11,624-31 Sh, dk gry, sli silty, calc, scattered pyritic  
fossils  
11,631-32 Sh, a.a., w/calcite lined near vertical fracture  
11,632-41 Sh, a.a.  
11,641-43 Sh, blk, calc  
11,643-44 Sltst, shaley, gray, calc  
11,644-49 Sh, dk gry, w/interb sh, gry to lt gry, calc  
11,649-52 Sltst, gry, calc, calcite lined vert fractures  
throughout, dense, tite  
11,652-53 Sh, gry to dk gry, calc FEB 1 1971

Note: No oil shows in any of the above cores.

Mud: 14 x 57 x 6.2 (sal 1100) (Oil 1%) (P.V. 35) (Y.P. 14)

Murdock No. 1

(WC) Brinkerhoff

13,000' Wasatch Test

7 5/8" Liner at 11,155'

11,717/112/154/41. Pulling Core #20.

Core #19 11,653-11,708 - Cut 55' Rec'd 49'

11,653-65 Sh, blk, calc, scattered pyrite, thin horiz  
layers of gilsonite  
11,665-68 Sh, lt gry, very calc, scattered calcite filled  
hairline fractures  
11,668-70 Sh, gry, scattered mica  
11,670-76 Sh, dk gry, calc  
11,676-78 Sltst, gry, calc  
11,678-87 Sh, gry to dk gry, calc  
11,687-89 Sltst, gry, calc  
11,689-702 Sh, dk gry to blk, calc  
11,702-08 No recovery FEB 2 1971

Note: No shows & no visible open natural fracs.

Core No. 20 11,708-11,718. Cut 10'. (Details later).

Mud: 14 x 48 x 6.4 (sal 900) (Oil 1%) (P.V. 26) (Y.P. 9).

Murdock No. 1 11,753/112/155/36. Drilling.  
(WC) Brinkerhoff Core No. 20 - 11,708-11,718. Cut and rec'd 10'.  
13,000' Wasatch Test 11,708-11,710 Silt, gry to dk gry, shaley, very calc  
7 5/8" Liner at 11,155' 11,710-11,715 Ls, very finely crystalline to dense, shaley,  
dk gry, calc, 3" calcite lined nearly vert  
fracture, grades to very calc gry shale  
11,715-11,717 Ls, silty, grades to very calc shale  
11,717-11,718 Sh, blk, calc FEB 3 1971  
Relined brakes on drawworks 3 1/4 hrs.  
Mud: 14 x 54 x 6.3 (sal 1100) (Oil 2%) (P.V. 32) (Y.P. 11).

Murdock No. 1 No report. FEB 4 1971  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

Murdock No. 1 11,856/112/157/103. (2 days drlg rept). Running in w/core  
(WC) Brinkerhoff bbl. Gas kick while drlg at 11,856. Cut mud weight to 13.2.  
13,000' Wasatch Test Pulled out for core bbl. FEB 5 1971  
7 5/8" Liner at 11,155' Mud: 14 x 56 x 5.4 (Oil 1%).

Murdock No. 1 11,989/112/160/133. Running DST #9 11,814-11,989.  
(WC) Brinkerhoff Core No. 21 11,856-11,916 - cut and rec'd 60'.  
13,000' Wasatch Test 11,856-57.5 Sltst, shaley, gry, sli calc  
7 5/8" Liner at 11,155' 11,857.5-59.5 Sltst, a.a., w/thin lams, finely crystalline  
ls  
11,859.5-63 Sh, gry, very calc, silty  
11,863-67 Sh, blk, very calc, pyritic  
11,867-69 Sh, a.a., w/1' calcite lined frac  
11,869-79 Sh, a.a.  
11,879-80 Sh, a.a., w/1' calcite lined frac  
11,880-97 Sh, a.a.  
11,897-99 Sh, gry, very calc, hard.  
11,899-900.5 Ss, fg, S&P, lt gry, calcite filled, no vis  
por, calcite lined vert frac  
11,900.5-10 Sh, dk gry to blk, calc, sli silty  
11,910-12 Sltst, shaley, dk gry, very calc, w/thin  
ss layers, hard, calcite filled  
11,912-16 Sh, dk gry to blk, calc  
Note: No shows in sltst or ss.  
Strapped out of hole w/core bbl. Drld to 11,989, circ & cond  
mud for DST. FEB 8 1971  
Mud: 14.7 x 70 x 5.4 (Oil 1%).

Murdock No. 1 11,989/112/161/0. Reaming to bottom.  
(WC) Brinkerhoff DST No. 10 11,814-11,989 (Johnston)  
13,000' Wasatch Test 8800' WC (101 bbls) (42 bbls to fill)  
7 5/8" Liner at 11,155' Op 20 min Op w/weak, increase to strong in 3 min. Remained constant.

SI 120 min

Op 120 min Op w/weak, increase to strong in 5 min. Nearly dead after 45 min (2" H<sub>2</sub>O). Con't 2" blow throughout.

SI 240 min

Recovery: 1 bbl oil (Lt grn to white)  
2 bbls mud

Sample Chamber: 2250 psig

6.1 CF gas

50 cc's oil

1200 cc's mud (Rm = 10.0 @ 63°F.)

Pressures: Recorder @ 11,834

IHP 8990, IFP 4047-4131, ISIP 8288, FFP 4131-4159, FSIP 8625, FHP 8990.

Max temp 204°F.

Finished SI on DST #10 at 11:07 p.m. Pulled pkr loose. Dropped bar and reversed out contents of DP. After equalizing, unable to clear pipe of GCM w/500 psi on csg. Picked up Kelly and circ out remainder of GCM. Tripped out w/test tools & picked up drlg assembly. FEB 9 1971

Mud gradient: .755

Mud: 14.5 x 75 x 5.8 (Oil 1%) (LCM trc)

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

12,046/112/162/57. Drilling.  
Mud gradient - .765 FEB 10 1971

Mud: 14.7 x 68 x 6.8 (Oil 1%).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

12,085/112/163/39. Coring.  
Made SLM correction 11,989=11,995 (6' correction)  
(DST #10 interval should be corrected to 11,820-11,995).  
Pulled for Core #22 at 12,085. FEB 11 1971  
Mud: 15.1 x 54 x 5.8

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

12,133/112/164/48. Coring on Core #23.  
Core No. 22 12,085-12,113 Cut and rec'd 28'.  
12,085-90 Sh, gry, calc, hd, tite, trc scattered lt grn fluor  
12,090-94 Sh, dk gry, calc, a.a., ostracods  
12,094-113 Sh, blk to gry, a.a., ostracods, sli pyritic, fossiliferous.

Note: Last foot fractured. May have been natural fractures.  
Lost 200 bbls mud past 24 hrs. FEB 12 1971

Mud: 15 x 58 x 5.8.



Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" liner at 11,155'

12,194/112/167/61. Drilling.  
Core No. 23 12,113-12,140. Cut 27'. Rec 23'.  
12,113-12,121 Sh, dk gry to blk, very calc, calcite healed  
fractures in top 1/2 foot, fossiliferous  
12,121-12,123 Sltst, gry, grades to ss, vf g, gry, sli calc  
12,123-12,126 Ss, vf g, gry, sli calc, very sli micaceous,  
pyritic, well sorted  
12,126-12,130 Ss, a.a., very calc  
12,130-12,132 Sh, sli calc, dk gry, soft  
12,132-12,134 Sh, sli calc, med to dk gry  
12,134-12,135 Ss, a.a.  
12,135-12,136 Sh, dk gry to blk, sli calc, fossiliferous  
12,136-12,140 No recovery

Note: No shows in core.

DST No. 11 12,002-12,140

Johnston on bottom test  
15/16" Bottom Hole Choke  
10,400' WC

Op 20 min. Op w/moderate blow. Inc to strong blow in 1 min.  
Remained strong.

SI 120 min.

Op 90 min. Op w/strong blow. Dec to weak in 7 min. Inc  
to strong in 32 min. Dec to moderate and  
continued moderate. No GTS.

SI 300 min.

Rec. 1 bbl oil

0.5 bbl mud

Sample Chamber: 2300 psig  
800 cc's oil (37.6° API @ 60°F)  
4.2 cu ft gas  
Calculated GOR = 830

Pressures: Recorder @ 11,979 (Inside)

IHP 9614, IFP 4751-4751, ISIP 8935, FFP 4751-4779, FSIP 8935,  
FHP 9585.

Max. Temp. - 214°F

Changed drlg line and ran bit to 12,140. Reamed and CO to  
12,070. Circ and cond mud at 12,140. Pulled and ran core  
bbl.

Core No. 24 12,140-12,180. Cut 40'. Rec'd 38'.

12,140-12,146 Sh, dk gry to blk, very calc, brittle, hard  
12,146-12,154 Sh, blk, carb, sli calc, (46-47 small fracture)  
12,154-12,160 Ss, vf g, very calc, tite, med gry, calcite  
lined frac (57-59) 15° from vert.  
12,160-12,175 Sh, med to dk gry, calc, brittle, dense  
12,175-12,176 Ss, vf g, calc  
12,176-12,178 Sh, med gry to dk gry, calc  
12,178-12,180 No recovery

Note: Bright yellow cut fluor on frac faces. No shows  
in SS matrix.

Mud: 15.3 x 64 x 6.6 FEB 16 1971

Murdock No. 1 12,223/112/168/29. Circ at shoe of liner; repairing engine.  
 (WC) Brinkerhoff Unable to drill w/two engines. Pulled into liner; inj seals  
 13,000' Wasatch Test leaking in #2 engine. FEB 17 1971  
 7 5/8" Liner at 11,155' Mud: 15.3 x 65 x 6.2 (Oil 1%).

Murdock No. 1 12,266/112/169/43. Drilling  
 (WC) Brinkerhoff 13 3/4 hrs time lost repairing engine.  
 13,000' Wasatch Test Mud: 15.1 x 52 x 4.8. FEB 18 1971  
 7 5/8" Liner at 11,155'

Murdock No. 1 12,350/112/170/84. Drilling. FEB 19 1971  
 (WC) Brinkerhoff Mud: 15.1 x 57 x 5 (Oil trc)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 12,530/112/173/180. Drilling.  
 (WC) Brinkerhoff Pulled bit to pick up additional 3 1/2" DP. Magnafluxed DC's,  
 13,000' Wasatch Test no defects. Picked up 15 jts additional 3 1/2" DP.  
 7 5/8" Liner at 11,155' (No mud details). FEB 22 1971

Murdock No. 1 12,587/112/174/57 Drilling.  
 (WC) Brinkerhoff Lost 40 bbls mud from 12,579-12,581.  
 13,000' Wasatch Test Mud: 15 x 57 x 6. FEB 23 1971  
 7 5/8" Liner @ 11,155'

Murdock No. 1 12,658/112/175/71. Drilling. FEB 24 1971  
 (WC) Brinkerhoff Mud: 15.1 x 57 x 6.  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 12,721/112/176/63 Drilling.  
 (WC) Brinkerhoff Mud: 15 x 56 x 5.8 FEB 25 1971  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

Murdock No. 1 12,775/112/177/54. Drilling.  
 (WC) Brinkerhoff Mud: 15.1 x 62 x 5.1 FEB 26 1971  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 12,945/112/180/170. Drilling.  
 (WC) Brinkerhoff Mud: 14.9 x 68 x 5.4 MAR 1 1971  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 12,961/112/181/16. Drilling.  
 (WC) Brinkerhoff Washed and reamed from 12,897-12,957.  
 13,000' Wasatch Test Mud: 15.1 x 75 x 5 MAR 2 1971  
 7 5/8" Liner at 11,155'

Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" Liner at 11,155'	12,982/112/182/21. Drilling. Mud: 15 x 62 x 5.2 (LCM 6%) (Oil 2%).	MAR 3 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" Liner at 11,155'	13,045/112/183/63. Drilling. Mud: 15 x 59 x 5.5 (LCM 5%) (Oil 1%)	MAR 4 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" Liner at 11,155'	13,124/112/184/79. Drilling. Mud: 14 x 61 x 5.9 (LCM 6%) (Oil 1%)	MAR 5 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" liner at 11,155'	13,348/112/187/224. Drilling. Lost 350 bbls mud last 24 hrs. Mud: 14.6 x 58 x 5.5 (LCM 12%) (Oil 1%)	MAR 8 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" liner at 11,155'	13,404/112/188/56. Drilling. Lost 200 bbls mud first 24 hrs. Mud: 15 x 60 x 6 (LCM 13%) (Oil 1%)	MAR 9 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" liner at 11,155'	13,431/112/189/27. Drilling. Circ at shoe of liner on trip 1½ hrs. Mud: 14.8 x 55 x 6.5 (LCM 10%) (Oil Trc)	MAR 10 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" liner at 11,155'	No report.	MAR 11 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" liner at 11,155'	13,442/112/191/11 (2 days report) Mixing mud for volume. Mixed mud. Staged DP in hole, circ and cond mud at 13,439. Drld to 13,442. Made run to shoe of liner. Ran back to 13,442. Lost circ and pulled bit into shoe of liner. Lost 350 bbls mud past 24 hrs. Mud: 15 x 82 x 59 (LCM 17%) (Oil Trc)	MAR 12 1971
Murdock No. 1 (WC) Brinkerhoff 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	13,442/112/194/0. Circ and cond mud. Ran logs as follows: FDC/GR/Cal, SNP/GR/Cal, Int BHCS/GR/Cal, DIL/SP, Dipmeter (4 arm), PL/ML/Cal. Mud: 14.7 x 96 x 5.6 (LCM 18%) (Oil trc).	MAR 15 1971

Murdock No. 1 13,442/112/195/0. Prep to reverse out DST.  
 (WC) Brinkerhoff Had apparent pkr failure after 10 min. MAR 1 6 1971  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 13,442/112/196/0. Circ and cond mud for DST No. 13.  
 (WC) Brinkerhoff Reversed out wtr cushion of previous DST; found pkrs to be ok.  
 13,000' Wasatch Test Mud: 14.8 x 66 x 6.5. MAR 1 7 1971  
 7 5/8" liner at 11,155'

Murdock No. 1 13,442/112/197/0. Running DST #13.  
 (WC) Brinkerhoff Lost 250 bbls mud past 24 hrs while circ for DST.  
 13,000' Wasatch Test Mud: 14.8 x 62 x 6.6 (LCM 16%) (Oil trc). MAR 1 8 1971  
 7 5/8" Liner at 11,155'

Murdock No. 1 13,442/112/198/0. Circ at top of 7 5/8" Liner at 8728.  
 (WC) Brinkerhoff DST #13 13,251-13,442 - Details later  
 13,000' Wasatch Test Pulled DST #13; reversed out water cushion. Ran bit and hit  
 7 5/8" Liner at 11,155' 7 5/8" liner hanger w/bit. MAR 1 9 1971

Murdock No. 1 13,488/112/201/46. Drilling.  
 (WC) Brinkerhoff DST #13 (Johnston) 13,251-13,442  
 13,000' Wasatch Test (1) 10,000' WC (2) 5/8" BH choke  
 7 5/8" Liner at 11,155' Op 20 min. Op'd w/fair blow, continued throughout.  
 No GTS. SI 120 min. Op 60 min. Op'd w/fair blow (12" H<sub>2</sub>O)  
 continued throughout. No GTS. SI 7 hrs.  
Recovery: 10,000' WC. Approx 40 bbls drlg mud (N.S.)  
 (Could not press annulus while reversing).  
 Sample chamber contained trc of mud, filtrate recovered, N.S.  
 Could not completely purge chamber w/100 psi. Additional  
 contents will be determined later.  
Recorder at 13,274.  
 Press: IHP 10,490, IFP 6155-7386, ISIP 9707, FFP 7050-7106,  
 FSIP 9902, FHP 10,210.  
 Max Temp. - 248°F.  
 Pulled out to check bit and DP, ok. Ran new bit and  
 staged into 13,282. Lost all returns - 375 bbls mud.  
 Pulled to shoe of 7 5/8" liner. Regained circ. Staged  
 into 13,442 and drld to 13,449. Reamed and CO from 13,429-  
 13,449. MAR 2 2 1971  
 Mud: 15 x 60 x 9.2 (LCM 24%).

Murdock No. 1 13,552/112/202/64. Mixing volume at shoe of 7 5/8" liner.  
 (WC) Brinkerhoff Lost 300 bbls mud at 13,552. Pulled to shoe of 7 5/8" liner  
 13,000' Wasatch Test at 11,155.  
 7 5/8" Liner at 11,155' Mud: 14.9 x 61 x 8 (LCM 20%). MAR 2 3 1971

Murdock No. 1 13,580/112/203/28. Drilling.  
 (WC) Brinkerhoff Staged DP in hole to 13,552 from shoe of 7 5/8" csg.  
 13,000' Wasatch Test Washed and reamed from 13,522-13,552. Lost 500 bbls mud  
 7 5/8" liner at 11,155' past 24 hrs. MAR 24 1971  
 Mud: 14.8 x 52 x 8 (LCM 15%)

Murdock No. 1 13,640/112/204/60. Prep to wipe hole.  
 (WC) Brinkerhoff Pulled 6 stds to wipe hole at 13,594, no problems.  
 13,000' Wasatch Test Lost 250 bbls mud past 24 hrs. MAR 25 1971  
 7 5/8" Liner at 11,155' Mud: 14.9 x 57 x 7.4 (LCM 18%).

Murdock No. 1 13,648/112/205/8. Circ at shoe of 7 5/8" liner at 11,155.  
 (WC) Brinkerhoff Drld to 13,648. Pulled out and ran (1) Int BHCS/GR/Cal, (2)  
 13,000' Wasatch Test attempted to calibrate PL/ML on surface. Could not calibrate.  
 7 5/8" liner at 11,155' Did not run log. Ran milled tooth bit to shoe of 7 5/8" liner.  
 MAR 26 1971

Murdock No. 1 13,759/112/208/111. Drilling.  
 (WC) Brinkerhoff Set RTTS tool (Hal) at 11,105. Press tested csg to 1800 psi  
 13,000' Wasatch Test in 5 min, ok. Wiped hole w/short trip at 13,715. Circ ok.  
 7 5/8" Liner at 11,155' Mud: 14.8 x 60 x 6.8 (LCM 16%). MAR 29 1971

Murdock No. 1 13,828/112/209/69. Drilling.  
 (WC) Brinkerhoff Made two wiping runs past 24 hrs -- no mud loss.  
 13,000' Wasatch Test Mud: 14.8 x 55 x 6.4 (LCM 21%). MAR 30 1971  
 7 5/8" Liner at 11,155'

Murdock No. 1 13,850/112/210/22. Circ at 12,700.  
 (WC) Brinkerhoff Staged DP in hole and drld to 13,850.  
 13,000' Wasatch Test Cond mud for logging and ran Schl Int BHCS/GR/Cal.  
 7 5/8" Liner at 11,155' Ran mill tooth bit to shoe of 7 5/8" liner.  
 Circ'd and staged DP to 12,700. MAR 31 1971  
 Mud: 14.8 x 56 x 6.2 (LCM 21%).

Murdock No. 1 13,860/112/211/10. Coring on Core #25.  
 (WC) Brinkerhoff Staged to btm at 13,850. Circ'd and cond mud for core.  
 13,000' Wasatch Test Pulled out and picked up 30' section of core bbl. Staged  
 7 5/8" Liner at 11,155' core bbl to btm. APR 1 1971  
 Mud: 14.8 x 56 x 6.2 (LCM 21%)

Murdock No. 1 13,880/112/212/20. Logging.  
 (WC) Brinkerhoff Core No. 25 13,850-13,880 Cut 30'. Rec'd 28'. Details later.  
 13,000' Wasatch Test Mud: 15 x 55 x 5.2 (LCM 23%). APR 2 1971  
 7 5/8" Liner at 11,155'

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

13,880/112/215/0. Circ openended at 11,500'; prep to plug back.  
Core #25 13,850-13,880. Cut 30' rec 28'.  
13,850-51 Slst, brn to red brn, very arg, very calc, no show.  
13,851-52 Sh, gry-brn, carb, very calc  
13,852-53 Sh, red-brn, silty, very calc  
13,853-54 Sh, gry, silty, very hard, very calc  
13,854-55 Sh, gry, mottled w/red-brn, trace carb wood frags, very calc  
13,855-58 Sh, gry, fossiliferous (ostracods).  
13,858-61 Sh, gry-brn, mottled, carb wood frags, very calc  
13,861-62 Sh, gry, w/blk ostracods, sli calc  
13,862-65 Slst, gry-brn, very arg, very calc.  
13,865-67 Sh, silty, gry-brn, very calc  
13,867-68 Slst, brn, arg, very calc, no show  
13,868-71 Sh, gry, very hard, carb, 1/2" coal seam  
13,871-78 Sh, gry-brn, mottled, silty fossil frags, very calc  
13,878-80 No recovery  
Ran Int BHCS/GR/Cal; DIL/SP.  
Ran DST #14 - 13,676-13,880. Strapped in hole to 11,500 to plug back.  
DST #14 13,676-13,880(Johnston)  
Op 15 min. Op w/v weak blow. Inc to fair. Lost 1-2 bbls mud from annulus very slowly.  
SI 120 min. Op 33 min. No blow, tool appeared to be plugged or not open. SI 15 min. Op 60 min. No blow. SI 300 min.  
Recovery: 104 bbls slightly mud cut water cushion. No shows.  
Sample Chamber: 1500 cc drilling mud (no shows)  
Rm = 1.0 @ 64°F.  
Pressures: Recorder @ 13,664 (Tool not plugged during flow period)  
IHP 10,713, IFP 4589, ISIP 8617 (increasing), FFP 5400,  
FSIP 8534 (increasing), FHP 10,657. APR 5 1971  
Max temp 248°F.  
Mud: 14.9 x 65 x 6.8 (LCM 23%).

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

TD 13,880. PB 11,297/112/216/0. Pulling out.  
Hung DP openended at 11,500. Mixed and equalized 105 cu ft Class "G" cmt w/18% salt, 1% CFR-2, and .5% HR-4. 20 bbls ahead, 5 bbls wtr behind. Pulled out and ran mill tooth bit. Located cmt at 11,293. Drld firm cmt to 11,297.  
Mud: 14.9 x 69. APR 6 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" liner at 11,155'

TD 13,880. PB 11,269/112/217/0. Pulling out.  
Hung DP openended at 11,297. Mixed and equalized 60 cu ft Class "G" cmt w/18% salt, 1% CFR-2, and .5% HR-4. 20 bbls ahead, 4.5 bbls wtr behind. Pulled out and ran mill tooth bit. Located cmt at 11,261. Drld firm cmt at 11,269.  
No mud details. APR 7 1971

Murdock No. 1 TD 13,880. PB 11,269/112/218/0. Pulling out w/openended DP.  
(WC) Brinkerhoff Hung DP openended at 11,269. Mixed & equalized 100 sx Class  
13,000' Wasatch Test "G" cmt w/18% salt, 1% CFR-2, .5% HR-4. 20 bbls water ahead,  
7 5/8" Liner at 11,155' 4.5 bbls water behind. 15.8# slurry. Cmt in place 3:45 a.m.  
4/8/71. APR 8 1971  
Mud: 14 x 41.

Murdock No. 1 TD 13,880. PB 11,200/112/222/0. Laying down drill pipe.  
(WC) Brinkerhoff Located top of cmt plug #3 at 10,054. Hard from 10,069-  
13,000' Wasatch Test 11,200. Ran GR depth control log (OWP). Stopped at 11,164.  
7 5/8" Liner at 11,155' Made CO run w/bit and reran log. Ran Servco 9" underreamer -  
opened up 6 1/2" hole to 9" from 11,155-11,200. Circ'd hole  
clean. Pulled underreamer. Ran 2 jts perf 5 1/2" 16.8# N-80  
flush jt liner w/4 1/2" holes/ft and set at 11,200' w/Brown  
Oil Tool guide shoe and standard setting sleeve at 11,113.  
Laid down 3 1/2" DP and 4 3/4" OD DCs. APR 12 1971

Murdock No. 1 TD 13,880. PB 11,200/112/223/0. Running 5 1/2" csg for heat  
(WC) Brinkerhoff string. Laid down 4 1/2" DP. Broke down Kelley. Attempted to pull  
13,000' Wasatch Test wear bushing from head but found none. RU OWP & set Bkr Model  
7 5/8" Liner at 11,155' "D" pkr w/flapper valve on WL @ 11,090 w/7 5/8 FC as depth  
control mkr. Pulled BOP stack to check 10" head spool. Found  
spool & top of 9 5/8 csg grooved. Remounted BOP stack &  
installed 5 1/2" rams. APR 13 1971

Murdock No. 1 TD 13,880. PB 11,200/112/224/0. Running 2 7/8" prod string.  
(WC) Brinkerhoff Ran total of 141 jts 5 1/2" 14# K-55 Rg2 belled openended csg  
13,000' Wasatch Test at 4460'. Installed backpress valve in 5 1/2" doughnut.  
7 5/8" Liner at 11,155' Landed 5 1/2". Removed BOP stack. Installed seal locking flange  
(5,000 psi). Packed off and tested to 5,000 psi. Installed  
10" x 6" 5,000 psi tbg hanger spool. Installed BOP stack  
less hydril. Removed 5 1/2" backpress valve and checked BOP's  
prior to picking up equip. Pulled 5 1/2" pipe rams. Installed  
2 7/8" rams. Nippled up lines and picked up Bkr prod tube,  
dbl seal assembly, Bkr Model "FL" on-off seal connector  
w/2.250" FSG blanking plug in place, 1 jt 2 7/8" tbg, Bkr  
Model "L" 2.310" sliding sleeve in closed position. Started  
in hole w/tbg. APR 14 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

TD 13,880. PB 11,200/112/225/0. Prep to pull BOP stack. Ran btm hole equip as reported on total of 353 jts 2 7/8" tbg. Stung into Model "D" pkr at 11,090. Pulled to 90,000#. Set 20,000# on pkr. Unable to release on-and-off tool. Released latch in seal assembly w/14 turns right hand torque. Relatched into pkr. Attempted to release on-and-off tool w/4 rounds left hand torque. Lost 10,000# tbg wt. Back washed approx 46 bbls wtr from tbg w/mud through chk. Over balanced csg to tbg differential prior to displacing = 2250#. Pulled 238 jts (7414') of tbg leaving 115 jts of 2 7/8" tbg and btm hole equip fish in hole w/collar looking up. Fish latched into Model "D" pkr at 11,090. Ordered left hand release grapples for fishing tools. Will have to pull 5 1/2" heat string to run 7" overshot to avoid possibility of overrunning 2 7/8" fish in 9 5/8" csg.  
APR 15 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner @ 11,155'

TD 13,880. PB 11,200/112/226/0. Circ through tbg to cond mud @ top of fish. Pulled BOP stack. Removed 10" - 5,000# x 6" - 5,000# tbg spool. Rec installed BOP stack. Installed 5 1/2" rams on BOP's. Pulled & laid down 5 1/2" heat string. Picked up Bowen 5 3/4 overshot w/7 1/2" OD skirt dressed w/3 21/32 L.H. release basket grapple w/control stop. Ran in on 119 stds 2 7/8" tbg to 7383. Installed kill valve on tbg. Circ to balance mud.  
APR 16 1971

Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner @ 11,155'

TD 13,880. PB 11,200/112/229/0. Rigging down Howco. On 4/16/71, landed 5 1/2" heat string. Cond mud to 13.6#. Ran 1 jt tbg. Worked over fish. Unlatched seal assembly from Model "D". Pulled and rec'd entire fish (tbg had backed out of collar). Installed 5 1/2" rams in BOP. Ran belled open heat string of 141 jts 5 1/2" 8rd K-55 14# R2 SS ST&C csg at 4460'. On 4/17/71, installed 2 7/8" pipe rams. Tested 10" 5,000# seal flange to 5,000 psi ok. Picked up Bkr 5' prod tube. Latched in dbl seal assembly. Bkr on-off seal connector w/2.250 FSG blanking plug in place, 1 jt 2 7/8" tbg, Bkr sliding sleeve in closed position and 3 jts 2 7/8" tbg. Checked each jt for makeup torque. Filled tbg w/mud every 5 stds. Latched into Model "D". Tested pkr w/20,000# set-down weight. Marked tbg for spacing out w/16,000# set-down wt. Un-jay Model "FL" on-off seal connector. Spaced out w/tbg sub. Set tbg on donut w/8000# set-down wt. MI&RU Hal to displace drlg mud w/fresh wtr. On 4/18/71, mixed 20 bbls gel plug. Displaced mud from hole. Flush wtr heated to 165°. Used approx 2,000 gals wtr. Circ 5 1/2" & 9 5/8" annulus - wtr still muddy. Switched to reverse circ - 150 bbls down 5 1/2" annulus - 50 bbls down 9 5/8" annulus, returns clean. Circ 700 bbls inhibited wtr. Returns at end of circ very clean. Installed tbg hanger. Tested on-off tool. Press'd csg to 1,000 psi. Tested tbg & tree to 7,000 psi, held ok for 10 min. Bled tbg to 1,000 psi. Tested 9 5/8" csg and 7 5/8" liner & top of pkr to 3500 psi, held ok for 10 min. Bled press off csg and tbg. APR 19 1971



Murdock No. 1  
(WC) Brinkerhoff  
13,000' Wasatch Test  
7 5/8" Liner @ 11,155' TD 13,880. PB 11,200/112/230/0. Pulling SSG plug hull.  
RU Marshall WL Service to ret SSG equalizing blanking  
plug from Bkr tbg on and off seal assembly at 11,089.  
Pulled equalizing stem - no press increase. APR 20 1971

Murdock No. 1  
(WC)  
13,000' Wasatch Test  
7 5/8" liner at 11,155' TD 13,880. PB 11,200. Moving out rotary rig.  
Jarred on FSG plug total of 3½ hrs. 3 runs - sheared release  
pin on fishing tool twice while jarring - sheared off third  
time, after jarring 1 hr and 25 min. Unable to pull plug  
from receptacle nipple. Released rig this AM.  
(Report discontinued until completion rig moved in) APR 21 1971

Murdock No. 1  
(WC)  
13,000' Wasatch Test  
7 5/8" Liner at 11,155' TD 13,880. PB 11,200. MORT. .  
Set Cameron back press valve in donut.  
Released rig 5 a.m. 4/21/71. (Report disc until completion  
rig moved in). APR 22 1971

Murdock No. 1  
(WC)  
13,000' Wasatch Test  
7 5/8" liner at 11,155' TD 13,880. PBTD 11,200. Attempting to release and drive plug  
out bottom of prod.tools. (RRD 4/22/71)  
On 4/25/71, MI R&R rig to location. Dug and cemented dead  
man anchors. Cleaned up location. On 4/26/71, MI&RU R&R  
Service Rig. RU hot oil service. Csg annulus press 0,  
tbg press 0. RU Marshall WL service. Press'd tbg to  
500 psi. Ran pulling tool. Press'd tbg from 0 to 2300 psi  
while jarring on plug sole. Sheared pulling tools. Laid  
down WL tools. Ran swab and swabbed approx 974 water load.  
Laid down swab and picked up WL tools. Found FL at 730'.  
Engaged plugs. Sheared off, reran. FL at 280'. Could not  
jar loose. Sheared release after 3½ hrs of jarring. Laid  
down tools. Closed well in overnight. 10 hrs SI press =  
1150 psi TP, CP 0. APR 27 1971

Murdock No. 1  
(WC) R&R Service  
13,000' Wasatch Test  
7 5/8" liner at 11,155' TD 13,880. PBTD 11,200. Flowing well down making oil  
spray and water. 16/64" chk. FTP 1000 psi. RU WL  
lubricator. Ran B prong on A driving tool. Engaged plug.  
Press'd tbg to 3000 psi; could not drive plug down.  
Press'd to 3500 psi; could not drive plug loose. Lowered  
press to 2500, could not drive loose. Lowered press to  
2000 and drove plug out of nipple. Chased plug out of  
end of prod tube. Pulled WL tools. Press on tbg stabilized  
at 1900 psi. RD Marshall WL service. Opened well to pit  
through 16/64" chk, died in 15 mins. RU and swabbed to  
pit. Starting swabbing at 12 noon. Swabbed approx 40 bbls  
mud and water w/show gas in 6½ hrs. Swabbed from 4000'.  
Circ hot water through heat string. 12-hr tbg shut-in  
buildup press 3800 psi. Csg press 0. APR 28 1971  
Note: Bkr SSG plug minus equalizing prong knocked out of  
receptical into liner below tbg prod tube.

Murdock No. 1  
 (WC) R&R Service  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

TD 13,800. PBTD 11,200. Flowing to battery.  
 SITP 3800 psi. Opened to pit. Dropped to 1000 psi on  
 16/64" chk in 10 mins. Flowed to pit on 16/64" chk.  
 At 10:30 a.m., increased to 18/64" chk w/800 psi FTP  
 flowing at 5 BO and 1 bbl muddy water/hr to pit. SI  
 to hook to battery at 2 p.m. Turned to battery 4 p.m.  
 2 hrs SI buildup press to 4000 psi. Opened well on  
 18/64" chk. Flowed to battery 15 hrs and increased chk  
 from 18/64" to 20/64" w/FTP fluctuating from 1000 to 500 psi.  
 At 7 a.m. 4/29/71, well flowing on 20/64" chk at 500 psi FTP.  
 Avg for 15 hrs-flowing 13 BO and 0 BW/H with estimated  
 600,000 CF gas per day. APR 29 1971

Murdock No. 1  
 (WC) R&R Service  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

TD 13,880. PBTD 11,200. Flowing to battery. From  
 7 a.m. to 11 a.m., flowed 63.4 BO to battery on 20/64"  
 chk at 700 psi FTP. SI to work on treater. Reopened  
 treater at 1 p.m. 4/29/71. From 1 p.m. to 4 p.m., flowed  
 59.4 BO on 18/64" chk at 500 psi FTP. Flowed total of  
 379 BO in 21 hrs on various chokes up to 20/64" w/FTP  
 varying from 450-1800 psi. Choke plugging occasionally.  
 Worked on treater from 11 a.m. to 1 p.m. Blew rupture  
 disc at 1:45 p.m., down 1 hr. 21-hr avg = 18 BO/H. From 6-7 a.m.  
 4/30/71, flowed 25 BO and no wtr on 19/64" chk with  
 500 psi FTP. Total oil produced in 36 hrs = 579 bbls.  
 Oil Gv. - 46.5° at 60°F. No BS&W observed. APR 30 1971

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

TD 13,880. PB 11,200. Flowing to battery.  
 On 4/30/71 down 1 hr to rig down unit; down 4 hrs working  
 on treater. Flowed 376.4 bbls oil in 19 hrs on 14/64"-19/64"  
 chk w/tbg press varying from 200-850 psi. 19 hr avg prod - 19.8  
 bbls oil/hr w/GOR of 549 to 1. Total oil produced in 55 hrs -  
 955 bbls. Rig released 12:30 p.m. 4/30/71.  
 On 5/1/71, flowed 427.8 BO in 24 hrs. No down time. Avg  
 flowing 17.8 BO/H with GOR of 587 to 1 on 19/64" chk w/FTP of  
 200#. 79 hrs total prod 1,383 bbls.  
 On 5/2/71, flowed 418.5 bbls oil in 24 hrs. No down time. Avg  
 flowing 17.4 BO/H with GOR of 533 to 1 on 16/64" chk w/FTP of  
 300 psi. TP declined from 200 psi to 50 psi on 19/64" chk.  
 Pinched chk in to raise FTP. Csg press 0. (Total of 103  
 hrs - 1,801 bbls produced.) MAY 3 1971  
Note: Addition of 213 MCF w/rate of 18 BO/H on 4/30/71.

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

TD 13,880. PB 11,200. Flowing to btry.  
 Flowed 410.6 BO, no wtr, and 175,197 CF gas at avg of  
 17.1 BO/hr (GOR 426). Total production in 127 hrs - 2211 bbls.  
 Repairing gas meter. MAY 4 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed  
 (WC) 388 BO, no wtr, and 165,000 CFG (GOR 426) on 17/64" chk  
 13,000' Wasatch Test at 250 psi FTP. Avg rate - 16.1+ BO/H. MAY 5 1971  
 7 5/8" liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,200. Telephone lines out; no report.  
 (WC) MAY 6 1971  
 13,000' Wasatch Test  
 7 5/8" liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,200. Flowing.  
 (WC) On 24-hr test 5/5/71, well flowed 384 BO, no wtr, and  
 13,000' Wasatch Test 146,000 CF (GOR 380) on 17/64" chk at 250# FTP. Oil Gv. 45°  
 7 5/8" Liner at 11,155' @ 60° API.  
 On 24-hr test 5/6/71, well flowed 358 BO, trc wtr, and 133,713  
 CF (GOR 374) on 16/54" chk at 250# FTP, CP 0. Total produced  
 in 199 hrs - 3351 bbls. MAY 7 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing to btry.  
 (WC) On 24-hr test 5/7/71, flowed 354 BO, no wtr, and 148,729 CF  
 13,000' Wasatch Test gas (GOR 417) on 16/64" chk, 200 FTP, 0 CP. Avg rate - 14.7  
 7 5/8" Liner at 11,155' BO/H. On 24-hr test 5/8/71, flowed 350.4 BO, .1 BW, and  
 143,912 CF gas (GOR 411) on 16/64" chk, 200 FTP, CP 0.  
 Avg rate - 14.6 BO/H. On 24-hr test 5/9/71, flowed 341.3 BO,  
 .1 BW, and 142,488 CF gas (GOR 418) on 16/64" chk, 200 FTP,  
 CP 0. Avg rate - 14.2 BO/H. Total oil produced in 271 hrs -  
 4,385 bbls. MAY 10 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing to btry. MAY 11 1971  
 (WC) On 24-hr test 5/10/71, well flowed 326 BO, .1 BW, and  
 13,000' Wasatch Test 120,935 CF gas (GOR 371) on 15/64" chk w/200# FTP, CP 0.  
 7 5/8" Liner at 11,155' Avg rate - 13.6 BO/H. Total produced in 295 hrs - 4,711 BO.

Murdock No. 1 TD 13,880. PB 11,200. Flowing to btry. Flowed 307.3 BO,  
 (WC) .2 BW, and approximately 120,000 CF gas (GOR 391) on 15/64"  
 13,000' Wasatch Test chk w/FTP of 175, CP 0. Avg 12.6 BO/H. Total prod in 319 hrs  
 7 5/8" Liner at 11,155' 5,018 bbls. MAY 12 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing to btry.  
 (WC) Flowed 286.7 BO, .1 BW, and 190,216 CF gas (GOR 660) on  
 13,000' Wasatch Test 15/64" chk w/FTP 200, CP 0. Avg 11.9 BO/H. Total prod  
 7 5/8" Liner at 11,155' in 343 hrs - 5,304 bbls. MAY 13 1971

Murdock No. 1 TD 13,880. PBTD 11,200. Flowing to battery. Flowed 279.4  
 (WC) bbls oil, .1 bbl wtr, 364,634 cu ft gas, (GOR 1307) (Orifice  
 13,000' Wasatch Test meter reading) on 15/64" chk at 200 psi FTP, CP 0. Avg -  
 7 5/8" liner at 11,155' 11.6 BO/H. Switched to 3" Rotron gas meter for check. Total  
 367 hrs prod = 5583 bbls oil. MAY 14 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing to battery.  
 (WC) As of 7 a.m. 5/15/71, well flowed 273 BO, no wtr, and 108.9  
 13,000' Wasatch Test MCF gas (GOR 399) on 14/64" chk in 24 hrs. FTP 175, CP 0.  
 7 5/8" Liner at 11,155' (Rotron gas meter). MAY 17 1971  
 As of 7 a.m. 5/16/71, flowed 241 BO, 1½ BW, and 104.5 MCF  
 (GOR 433) on 15/64" chk in 22½ hrs. FTP 300, CP 90. Well  
 down 1½ hrs due to paraffin in tbg. Circ w/hot oiler and well  
 began flowing. Began circ system 2 p.m. 5/15/71.  
 As of 7 a.m. 5/17/71, flowed 246 BO, 0 BW, & 108.2 MCF (GOR 440)  
 on 15/64" chk in 24 hrs. FTP 450, CP 105. Inlet temp - 110°F.  
 Outlet temp - 100°F. Total prod in 437 hrs - 6,343 bbls.

Murdock No. 1 TD 13,880. PB 11,200. MI&RU hot oiler; prep to run BHP  
 (WC) survey. On 24-hr test as of 7 a.m. 5/18/71, well flowed  
 13,000' Wasatch Test 249 BO, 0 BW, and 110.2 MCF (GOR 443) on 16/64" chk w/FTP  
 7 5/8" Liner at 11,155' 500, CP 100. Ran circ system 22 hrs. Inlet temp - 105°F.,  
 Outlet temp - 95°F. Circ 1.33 B/M at 100 psi. MAY 18 1971

Murdock No. 1 TD 13,880. PB 11,200. Prep to run BHP survey; WL company  
 (WC) did not arrive yesterday. As of 7 a.m. 5/19/71, well flowed  
 13,000' Wasatch Test 259 BO, no wtr, and 108.7 MCF gas (GOR 420) on 17/64" chk  
 7 5/8" Liner at 11,155' w/FTP 400, FCP 115, in 24 hrs. Circ system ran 20 hrs. Ran  
 at 1 1/3 B/M. Inlet temp - 96°, outlet temp - 92°. MAY 19 1971  
 Total production in 485 hrs - 6,841 bbls oil.

Murdock No. 1 TD 13,880. PB 11,160. Prep to run BHP survey. Pulled sinker  
 (WC) bars, attempted to run BHP but checks failed. Put well on prod.  
 13,000' Wasatch Test Well flowed 212 BO, no wtr and 92.7 MCF gas (GOR 437) on 14/64"  
 7 5/8" Liner at 11,155' chk w/FTP 900, FCP 150 psi in 21 hrs. Circ system ran 24 hrs.  
 Inlet temp - 101°, outlet temp - 96°. Circ 1943 BW in 24 hrs  
 (.35 B/M). Total prod 7053 BO in 506 hrs. MAY 20 1971  
 RU WL Service 5-19-71. Ran in hole w/1 3/4" OD tool to  
 11,160 (new PBTD).

Murdock No. 1 TD 13,880. PB 11,160. SI for BHP survey. MAY 21 1971  
 (WC)

13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,160. Pulling BHP bomb. MAY 24 1971  
 (WC)

13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,160. Rerunning BHP bomb.  
 (WC) MAY 25 1971

13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,160. SI for BHP survey. MAY 26 1971  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,160. SI for BHP survey. MAY 27 1971  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,160. Flowing on test. Flowed 172 BO,  
 (WC) no wtr in 12 hrs. Tbg press 500 psi, chk 18/64". MAY 28 1971  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'

Murdock No. 1 5/28/71 flowed 278 BO no water for 24 hrs on 21/64" chk, TP-230  
 (WC) 5/29/71 flowed 275 BO no water for 24 hrs on 21/64" chk, TP-220  
 13,000' Wasatch Test 5/30/71 flowed 267 BO no water for 24 hrs on 21/64" chk, TP-220  
 7 5/8" Liner at 11,155 5/31/71 flowed 267 BO no water for 24 hrs on 21/64" chk, TP-215  
 No gas measurement - meter repairs. JUN 1 1971

Murdock No. 1 TD 13,880. PB 11,160. Running collar locator and depth  
 (WC) determination surveys to check fillup in liner. On last  
 13,000' Wasatch Test 24-hr test, well flowed 260 BO, no wtr, 120 MCF (GOR 462)  
 7 5/8" Liner at 11,155' on 22/64" chk w/225 FTP. JUN 2 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing. RU McC tools to run GR  
 (WC) correlation depth log to determine if Zone 11,163-11,171 was  
 13,000' Wasatch Test clear for frac job. Ran logging tools under high press grease  
 7 5/8" Liner at 11,155' gun lubricator - some wax drag on tool to 3500'. Dropped free  
 from that point. Btm prod tube at 11,101. Set down at 11,109  
 w/top of tools still in tbg. Set down second time and tools  
 went to approx 11,124 w/tools completely out of pkr. Picked  
 up to btm of prod tube and pulled line out of rope socket.  
 Note: Complete GR logging tool w/collar locator, sinker bars,  
 and rope socket. Fishing neck left in hole under pkr. (total  
 length 19'.) Max OD 1 3/4". RD McC. Op well to treater & in 16  
 hrs, flowed 201.3 BO & 62,796 cf gas (GOR 380) on 22/64" chk  
 w/280 FTP. Total oil produced to date 8843.1 bbls (Total expense  
 \$1,372,600). JUN 3 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing. On 24-hr test, well  
 (WC) flowed 274.2 BO, 117,952 cf gas (GOR 430) on 22/64" chk  
 13,000' Wasatch Test w/FTP 210. (Total oil produced to date - 9117.3 bbls).  
 7 5/8" Liner @ 11,155' JUN 4 1971

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" liner @ 11,155'  
 TD 13,880. PB 11,200. Flowing.  
 On 24-hr test 6/4/71, flowed 268.4 BO, no wtr and 101 mcf gas (Gor 373) on 21/64" chk. FTP 275 psi.  
 On 24-hr test 6/5/71, flowed 265 BO, no wtr and 115 mcf gas (GOR 434) on 21/64" chk, FTP 275 psi.  
 On 24-hr test flowed 254.7 BO, no wtr and 103.6 mcf gas (GOR 408) on 20/64" chk, FTP 310 psi. Total oil produced to date 9,905 bbls. ~~JUN 7 1971~~

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" liner @ 11,155'  
 TD 13,880. PB 11,200. Flowing. -  
 On 24-hr test flowed 248.6 BO, no wtr and 104.1 MCF gas (GOR 421) through 21/64" chk, FTP 310 psi. Total produced to date 10,154 BO.  
 (Report discontinued until well is CO) ~~JUN 8 1971~~

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'  
 TD 13,880. PB 11,200. Flowing (RRD 6/8/71) ~~JUL 15 1971~~  
 On 7/13/71, MI&RU NOWSCO to attempt btm hole fillup CO. Ran in hole w/3/4" endless tbg. Blew top set of hydraulic BOP rubbers. Pulled out of hole to check BOP stack.  
 On 7/14/71, installed running control head. Ran in hole w/3/4" endless tbg injecting approx 200 CF nitrogen/min while going in hole. Worked tbg to hard wax 2,000'-3800'. Increased nitrogen to approx 650 CF/min at 11,000'. Ran pipe slowly to 11,182' w/no sfc indication of solid fillup. Blew off line returns - very fine cuttings consisting of sd, shale, & mud w/possible cmt chips. Could not penetrate below 11,182'. Increased nitrogen to 950 CF/min at 11,182' for last 35 min. No increase in cuttings. Blew at 11,182' for approx 3 hrs total pump time. Pulled out of hole w/tbg. Measuring device unreliable coming out of hole. RD NOWSCO. Put well back on prod 5:30 p.m. 7/14/71. 13½ hrs prod = 106.4 BO, .3 BW w/39,860 CF gas. (Report disc until further activity)

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'  
 TD 13,880. PB 11,200. Flowing.  
 After NOWSCO job, on 24-hr test ending 7 a.m. 7/16/71, flowed 170 BO, .2BW and 68 MCF on 18/64" chk w/FTP 500 psi. ~~JUL 16 1971~~

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner at 11,155'  
 TD 13,880. PB 11,200. Flowing  
 On 24-hr tests, rates are as follows:  
 7-16 166 BO, 0 BW  
 7-17 153 BO, 0 BW ~~JUL 19 1971~~  
 7-18 163 BO, 0 BW

Murdock No. 1  
 (WC)  
 13,000' Wasatch Test  
 7 5/8" Liner @ 11,155'  
 TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed 161 BO.  
~~JUL 20 1971~~

Murdock No. 1 TD 13,880. PB 11,200. Prep to frac.  
(WC) On 24-hr test, flowed 162 BO. JUL 21 1971  
13,000' Wasatch Test  
7 5/8" Liner at 11,155'

Murdock No. 1 TD 13,880. PB 11,200. Prep to open well today.  
(WC) 14-hr SITP = 400#. Gelled fluid. Staked down and tested  
13,000' Wasatch Test lines to Xmas tree master valve to 10,000 psi. Press'd  
7 5/8" Liner at 11,155' csg annulus to 3,000 psi. Started pmpg free pad w/approx  
24 bbls pad in tbg - annulus bypass valve open. SD.  
Reset valve. Repressured annulus to 2800 psi. Resumed  
pmpg pad. Pmpd free pad at 9500 psi at rate of 13.5 B/M.  
Pmpd frac pad at 13 3/4 B/M w/9500-9700 psi. Started frac  
w/1# sd/gal at 14 B/M w/9700 psi. Worked down to 8100 psi  
at start of 2#/gal sd rate. Press inc'd to 9950 psi w/2920  
gals of 2#/gal sd in tbg and on formation. SD pmps to keep  
within press limitations. Stopped sd. Started flush.  
Cleared tbg at final pump press of 9800 psi. Max frac press-  
9950 psi, min 7900. ISIP 5100 to 4800 in 5 min to 4500 in 15  
min. 9340# of sd in formation. JUL 22 1971

Murdock No. 1 TD 13,880. PB 11,200. Prep to change wellhead tree from  
(WC) Signal Well Serv. 10,000# to 5,000#. MI&RU Gibson Well Service to swab well.  
13,000' Wasatch Test Op'd well 12 noon 7/22 and well was dead. No liquid flow or  
7 5/8" Liner @ 11,155' gas. JUL 23 1971

Murdock No. 1 TD 13,880. PB 11,200. Flowing.  
(WC) Gibson Well Serv. On 7/23, swabbed for 8 hrs.  
13,000' Wasatch Test On 7/24, swabbed 8 hrs and flowed to tanks 14 hrs - 124 BO.  
7 5/8" liner at 11,155' On 7/25, on 24-hr test, flowed 223 BO and 4 BW. JUL 26 1971

Murdock No. 1 TD 13,880. PB 11,200. No report. JUL 27 1971  
(WC) Gibson Well Serv.  
13,000' Wasatch Test  
7 5/8" Liner @ 11,155'

Murdock No. 1 TD 13,880. PB 11,200. No report. JUL 28 1971  
(WC) Gibson Well Serv.  
13,000' Wasatch Test  
7 5/8" Liner @ 11,155'

Murdock No. 1 TD 13,880. PB 11,200. Flowing. On 24-hr test, well flowed  
(WC) Gibson Well Serv. 218 BO, 87 MCF gas on 23/64" chk w/FTP of 500 psi. JUL 29 1971  
13,000' Wasatch Test  
7 5/8" liner @ 11,155'

Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test well flowed 244 BO, 1½ BW and 120 MCF gas on 23/64" chk w/TP 500. Note: Released Gibson Well Service 7/25/71. JUL 30 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test 7/30/71, well flowed 257 BO, no wtr and 103 MCF gas on 28/64" chk w/525 psi FTP. On 24-hr test 7/31/71, well flowed 306 BO, 2 BW, and 119 MCF gas on 27/64" chk w/375 psi FTP. On 24-hr test 8/1/71, flowed 322 BO, 2 BW, and 225 MCF gas on 28/64" chk w/275 psi FTP. AUG 2 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed 327 BO, 3 BW, and 158 MCF gas on 28/64" chk w/275 psi FTP. AUG 3 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed 328 BO, 3 BW, and 132 MCF gas on 27/64" chk w/300 psi FTP. AUG 4 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 23-hr test, flowed 298 BO, 6 BW, & 122 MCF on 27/64" chk w/300 psi FTP. AUG 5 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test, well flowed 341 BO, 2 BW, and 131 MCF gas on 27/64" chk w/300 psi FTP. AUG 6 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr tests well flowed as follows: AUG 9 1971 8/6/71, 332 BO, 2 BW, and 129 MCF gas on 27/64" chk w/300 psi FTP. 8/7/71, 243 BO, 0 BW, 92 MCF gas on 31/64" chk w/550 psi FTP. 8/8/71, 312 BO, 2 BW, and 114 MCF gas on 34/64" chk w/300 psi FTP.
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed 331 BO, 2 BW, and 120 MCF gas on 35/64" chk w/300 psi FTP. AUG 10 1971
Murdock No. 1 (WC) 13,000' Wasatch Test 7 5/8" Liner @ 11,155'	TD 13,880. PB 11,200. Flowing. On 24-hr test, flowed 331 BO, 1 BW, and 121 MCF gas on 34/64" chk w/FTP 200. AUG 11 1971



Murdock No. 1  
(WC)  
13,000' Wasatch Test  
7 5/8" liner @ 11,155'

TD 13,880. PB 11,200. OIL WELL COMPLETE.  
On 24-hr test, well flowed 324 BO and 115 MCF gas on  
31/64" chk w/FTP 250 from the Green River - Wasatch  
Zone 11,155-11,200. Oil Gv. - 39.8° API at 60°.  
Test date 8/11/71. Completion date 4/27/71.  
Elev: ~~6325~~ KB 6233

Log Tops:

TGR<sub>3</sub> 8550 (-2225)

Top Wasatch 10,600 (-4275)

Well establishes production qualities in the Green River -  
Wasatch formation in the southern portion of our No. Uinta  
Basin acreage block. AUG 12 1971  
FINAL REPORT.

CASING AND CEMENTING

Area: North Uinta Basin

Well: Murdock No. 1

Shoe joint started in hole 1/12/71

Ran 56 jts 33.04#, S-95 FJ hyd 7 5/8" liner to 11,155'.

<u>Jts</u>	<u>Wt.</u>	<u>Grade</u>	LT&C <u>ST&amp;C</u>	<u>New</u>	<u>Feet</u>	<u>From</u>	<u>To</u>
56	33.04#	S-95	FJ	New	2426	8729	11,155'
<hr/> 56 Jts Total							

Bkr Fillup Model "G" Collar at 11,069'  
Bkr Guide Shoe at 11,155'

Cementing:

Liner hung at 11,155', liner hanger at 8729'. Cemented w/325 sx Class "G" cement, .4% HR-4, and 1% CFR-2. Last 150 sx w/1/4# Flocele per sx, 15-16# Slurry. CIP 12:15 a.m. 1/31/71. No circ during operation.

CASING AND CEMENTING

Area: No. Uinta Basin

Well: Murdock #1

Shoe joint started in hole 9/6/70.

Ran 36 jts. 13-3/8" H-40 54.5# casing to 1094'.

<u>Jts.</u>	<u>Wt.</u>	<u>Grade</u>	<u>ST&amp;C</u> <u>LT&amp;C</u>	<u>New</u>	<u>Feet</u>	<u>From</u>	<u>To</u>
36	54.5#	H-40	ST&C	New	1099'	0	1094

36 Jts. Total

Baker Float Collar at 1061'

Baker Guide Shoe at 1094'

No. Make & Type:

2 B&W centralizers spaced at 1090' and 1032'.

Cementing: With 20 bbls water ahead, cemented through shoe at 1094' w/700 sx 1:1 pozmix (14.2# slurry), followed by 200 sx Class "G" cement, 2% CaCl<sub>2</sub> (15.5# slurry). One top rubber plug. Cement in place 6:30 p.m. 9/6/70 (Howco).

Mixing time 37 min.

Plug time 1½ min.

Displacing time 31 min.

Displaced w/167 bbls mud.

CASING AND CEMENTING

Field: N. Uinta Basin

Well: Murdock No. 1

Shoe joint started in hole at 10:00 p.m. 11-3-70

Ran 230 jts 9 5/8" Smls, 40 & 47# casing to 9598'

<u>Jts.</u>	<u>Wt.</u>	<u>Grade</u>	<u>ST&amp;C</u> <u>LT&amp;C</u>	<u>New</u>	<u>Feet</u>	<u>From</u>	<u>To</u>
169	40#	S-95	ST&C	New			
61	47#	S-95	ST&C	New			9598

230 Jts

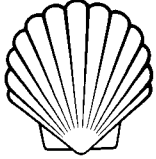
Baker Model "G" Differential Collar at 9509  
Baker Model "G" Differential Shoe at 9598

No. Make & Type:

2 B&W centralizers at 9592 and 9553'.

Cementing:

Ran and cemented 9 5/8" 40# & 47# S-95 ST&C csg at 9598' (169 jts 40# & 61 jts 47#) w/150 sx 1:1 pozmix, 2% gel and 1% CFR-2, .2% HR-4, followed by 200 sx Class "G", 15% salt and 1% CFR-2, .3% HR-4. 20 bbls water ahead. One top rubber plug. Displaced w/720 bbls drlg fluid. CIP 1:55 p.m. 11-4-70. Bumped plug w/2400 psi.



# SHELL OIL COMPANY

1700 BROADWAY  
DENVER, COLORADO 80202

Subject: Shell - Murdock No. 1  
Section 26-T2S-R5W  
Duchesne County, Utah  
API No. 43-013-30049

State of Utah  
Department of Natural Resources  
Division of Oil & Gas Conservation  
1588 West North Temple  
Salt Lake City, Utah 84116

Attention Mr. Cleon B. Feight

Gentlemen:

In reply to your letter of August 24, 1970, the location of Shell - Murdock No. 1 is in violation to the state-wide, 40-acre spacing rule (Rule C-3(b) due to topographic reasons. Lease ownership within a 660-foot radius of our proposed location is common with the ownership of the oil and gas lease under the proposed location.

Very truly yours,

For: R. A. Flohr  
Division Production Manager  
Rocky Mountain Division

THE STATE OF UTAH  
DIVISION OF OIL AND GAS CONSERVATION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

# SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. 20100
2. NAME OF OPERATOR Shell Oil Company (Rocky Mountain Division Production)		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1285' FNL and 1378' FEL Sec 26		8. FARM OR LEASE NAME Murdock
14. PERMIT NO. 43-013-30049		9. WELL NO. 1-26B5
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6233 KB		10. FIELD AND POOL, OR WILDCAT No. Uinta Basin
		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA Approx C NE/4 Sec 26-T 2S-R 5W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

16.

## Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input checked="" type="checkbox"/> Installation of Pump	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) \*

As per attached report

18. I hereby certify that the foregoing is true and correct

SIGNED

*L. K. Jordan*

TITLE Division Operations Engineer DATE Sept. 19, 1972

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

# INSTALLATION OF PUMP

SHELL OIL COMPANY

FROM: 6-30 - 8-28-72

LEASE

DIVISION

COUNTY

MURDOCK

ROCKY MOUNTAIN

DUCHESNE

WELL NO.

ELEV

STATE

ALTAMONT

1-26B5

6233 KB

UTAH

SEP 1 1972

## UTAH

### ALTAMONT

Shell-Murdock 1-26B5  
(Install pump)

"FR" TD 13,880. PB 11,200. AFE #583824 provides funds to install pumping unit. Completed installation of 1½" pumping unit 6/29/72. On 14-hr test, pmph 41 BO and 1 BW w/small amt unmeasured gas on 1½" pump x 120" stroke x 8 SPM w/10 psi FTP and zero CP. (Reports discontinued until test established) JUN 30 1972

Shell-Murdock 1-26B5  
(Install pump)

TD 13,880. PB 11,200. (RRD 6/30/72). INSTALLATION OF PUMP COMPLETE. On 24-hr test ending 7 AM 8/28/72, pumped 52 BO and no wtr w/1½" pump x 120" stroke x 8 SPM w/50 spi FTP and zero CP from Green River-Wasatch zone 11,155-11,200. AUG 2 8 1972  
FINAL REPORT.

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

<b>1.</b> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> 20100
<b>2. NAME OF OPERATOR</b> Shell Oil Company		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b>
<b>3. ADDRESS OF OPERATOR</b> 1700 Broadway, Denver, Colorado 80202		<b>7. UNIT AGREEMENT NAME</b>
<b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1285' FNL and 1378' FEL Section 26		<b>8. FARM OR LEASE NAME</b> Murdock
<b>14. PERMIT NO.</b> 43-013-30049		<b>9. WELL NO.</b> 1-26B5
<b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 6218 GL, 6233 KB		<b>10. FIELD AND POOL, OR WILDCAT</b> North Uinta Area
		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> Approx C NE/4 Section 26-T2S-R5W
		<b>12. COUNTY OR PARISH</b> <b>13. STATE</b> Duchesne Utah

**16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

**17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

As per attached prognosis

18. I hereby certify that the foregoing is true and correct.

SIGNED

*T.S. Mize*

TITLE Division Operations Engr.

DATE 7/31/74

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS, Salt Lake City, Utah (for information)

\*See Instructions on Reverse Side



REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5  
SECTION 26-T2S-R5W  
DUCHESNE COUNTY, UTAH

PERTINENT DATA:

ELEV: 6218 GL: KB-GL = 15'  
TD: 13,880'  
PBTB: 11,200'  
SHELL W.I.: 100%  
Estimated BHP @ 11,110' = 3700 psi

CAPITAL 516254-  
EXPENSE 516257  
AFE:  
SHELL'S SHARE: 100%

CURRENT STATUS:

well shut-in, incapable of natural flow. Pump is stuck in tbg at surface. There is a hole in the tubing. (See attached drawing Z16-1545).

PROPOSED WORK:

Control well, pull production tubing and heat string, mill out packer at 11,090', recover junk, recover 87 foot preperforated liner, CO to PBTB @ 11,200', spot cmt plug from casing point @ 11,155 to PBTB @ 11,200', and squeeze small amount into pay zone, drill out cement plugs from casing point to 11,500, CO to 12,750' run cemented liner from 12,750 to 11,000', run production equipment and recomplete.

Note: Work through Step 13 is by rotary tools.

PROCEDURE:

*DIFFICULT REVISION w/ FOUL*

1. Check tbg and csg pressure. Bleed TP to pits. MI pump truck. Displace 2-7/8" x 5-1/2" x 9-5/8" annuli free of water-glycol fluid with water and ~~save water-glycol fluid~~. (Displacement volume approximately 270 bbl.) Pump minimum 150 bbl ~~5-1/2"~~ *Fresh* water down tubing to control well. Shut-in the well.
2. Prepare pits and location and MI & RURT. Mix and condition 1200 bbl 9# ppg mud, or obtain mud from mud plant.
3. Check well for surface pressure and displace tubing volume with 9 ppg mud if necessary to complete controlling well. Install Type "H" BPV in tubing hanger. Remove tree and install and test BOPE w/2-7/8" pipe ram inserts.
4. With kill valve in place, rotate out of packer at 11,090'; displace entire hole w/9 ppg mud. Circulate and condition mud. Pull tubing. *& string down*
5. Install testplug in 5-1/2" heat string hanger. Remove tubing spool. Install and test 13-5/8" 5,000 psi BOPE with 5-1/2" pipe ram inserts. Test BOPE. Check for pressure under test plug. Remove testplug. Pull 5-1/2" heat string.
6. Change BOP rams. Pick up drill pipe and collars. With pkr mill on DP, mill out and retrieve Model "D" pkr at 11,090'.

7. Run 7-5/8" RTTS to 10,900'. Pressure test casing to 3000 psi surface pressure on 9 ppg mud for 15 min. If leak occurs, isolate and notify Denver Office.
8. With fishing tools on DP, engage and retrieve logging tool fish and 5-1/2" preperforated liner. (See attached drawings for liner setting sleeve dimensions and fish details).
9. With 6-1/2" bit, CO to PBTD @ 11,200'. POOH. GIH open ended and spot 100 sx cement plug at 11,200' (cement to be API Class "G" plus 1/8 to 1/4#/sx nylon fiber plus retarder as required for 4 hours thickening time at 210°F BHST. Slurry weight to be 15.9 ppg, yield 1.16 ft<sup>3</sup>/sx). Pull above plug (approx. to 10,700 ft), shut in and bradenhead squeeze 8 barrels into open hole. Do not exceed one (1) bbl/min rate or 2500 psi Surface Pressure. If squeeze pressure develops, hold for one (1) hour, reverse out DP and POOH. WOC 24 hours.
10. Drill out cmt and CO to 11,200'. Condition and raise mud wt to 15.3 ppg. Maintain 10#/bbl fine walnut hulls LCM. Spot lost circulation pill across open hole section as necessary to raise mud weight.
11. Drill out cmt plug with top @ 11,200' and CO to 13,880'. Circulate and condition hole in preparation to run 5" liner. Run caliper for cement calc.
12. Run and cmt liner assembly as per attached casing and cementing prognosis.
13. CO to liner top and pressure test as per attached pressure testing prognosis.
14. MORT. MICR. Displace mud w/250 gal BJ mud flush followed by 500 bbl water followed by 150 gal BJ mud flush followed by water until returns are clean and clear. Pressure test w/3500 psi. Spot 40 bbls 2% NaCl water on bottom. POOH.
15. Run CBL under 2000 psi on 15.3 ppg mud and PDC (gamma ray) logs from PBTD to 10,000'. Displace hole from PBTD to sfc with 5% NaCl water inhibited as per the attachment.
16. On electric line, run and set Bkr Model "D" pkr w/Flapper at 10,975' or 25' above liner top.
17. Change BOP rams to 5-1/2". Run, land, and packoff 4500' of 5-1/2" 14# K ST&C csg heat string.
18. Install test plug in 5-1/2" hanger, remove 10" BOPD. Install 10" x 6" 5,000 psi tbg spool and 6" - 5,000 psi BOPE w/2-7/8" ram inserts. Test BOPE.
19. Run production equipment as follows:
  - a. Baker Model "C" plug receptacle with Model "B" pushout plug in place, shop tested to 7500 psi differential both ways.
  - b. 30' long x 2-7/8" O.D. N-80 production tube.
  - c. Baker anchor-tubing seal assembly w/2 seal units.
  - d. Baker Model "EL" on-off seal connector. W/Otis 2.313" "N" nipple w/2.255" No-Go.

REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5

- e. Approximately 10,975' 2-7/8" O.D. N-80 EUE tubing with KBMG mandrels @ 2900', 5300', 7000', 8200', 8975', 9700', 10,600', and 10,885' or 90' above the pkr, w/dummies in place and shop tested. Test going in to 7,500 psi.
20. Sting into packer, test w/weight and tension. Mark for landing with 0-5,000 pound weight on pkr.
21. Jay off "EL" on-off connector, space out for landing. Jay on, land tubing and lock in. Install BPV in 2-7/8" tubing hanger. Remove BOPE and install and nipple up 10,000 psi W.P. tree. Pressure test tubing and tree to 7,500 psi.
22. Install BPV in tbg hanger. Remove BOP stack, install and nipple up 10,000 psi WP frac tree. Test tree to 10,500 psi. Inject 2+ bbls diesel down 7" x 9-5/8" annulus and in 5-1/2" x 7" annulus. Retest seals.
23. MOCR.
24. MI&RU jet perforator. With sinker bars and jars, knock out Model "B" expendable plug in tubing at approximately 11,040'.
25. Perforate from top down one hole at each of the following depths: (Depths refer to BHC/G12 log date 3/21/71.) May be perforated from bottom up provided perforations from 11,233 to 12,153 are shot first and shot from top down. Perforate unidirectionally using both top, middle and bottom magnetically decentralized 2" steel tube carrier guns. Use Schlumberger Hyperjet II charges if they are available to OWP. If not, use Schlumberger Hyperjet charges, or Harrison charges.

11,233	11,496	11,847	12,108	12,428
11,270	11,585	11,849	12,138	12,429
11,280	11,586	11,869	12,139	12,430
11,281	11,638	11,870	12,140	12,471
11,369	11,639	11,879	12,151	12,472
11,370	11,640	11,880	12,152	12,549
11,371	11,726	11,881	12,153	12,550
11,372	11,727	11,998	12,307	12,551
11,373	11,728	12,066	12,308	12,556
11,383	11,746	12,067	12,309	12,557
11,384	11,747	12,071	12,315	12,629
11,425	11,748	12,072	12,317	12,630
11,426	11,764	12,092	12,319	12,631
11,427	11,765	12,093	12,325	12,638
11,484	11,766	12,106	12,327	12,639
11,485	11,845	12,107	12,329	

26. Acid treat gross perforated interval 11,233 to 12,639 w/20,748 gals (494 bbls) 15% HCl as follows:
  - a. Pump 10 bbls 15% HCl.
  - b. Drop on 7/8" RCN ball sealer (S.G. 1.24) then pump 2 bbls 15% HCl.

REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5

- c. Repeat Step b. 236 more times for a total of 472 bbls acid and 157 ball sealers.
- d. Pump 10 bbls acid without Unibeads.
- e. Flush w/4074 gals (97 bbls) fresh water containing 165# NaCl and 3 gals G-10/1000 gals.

NOTE:

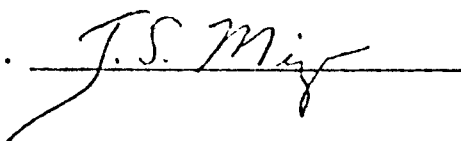
- (1) All acid except last 10 bbls to contain the following additives per 1000 gals:  
  
3 gals G-10, 3 gals C-15, 3 gals J-22, 30 lbs OS-160 Wide Range Unibeads, and 30 lbs OS-160 Button Unibeads. Last 10 bbl acid to contain all the above additives except Unibeads.
  - (2) Pump at a maximum rate of 8 BPM. Do not exceed 8900 psi surface pressure.
  - (3) Heat all fluids to 80F.
  - (4) If ballout occurs before all acid is injected into the formation, pressure up to 9500 psi, hold for 3 minutes, bleed back and inject remainder of acid.
  - (5) Hold 3000 psi on csg-tbg annulus.
27. Flow off for cleanup.
28. If possible, turn well to battery immediately after cleanup and produce uninterrupted at high rates for about one week.
29. Run BHP as required.
30. Change out 10,000 psi x-mas tree (as soon as well shuts in less than 5000 psi) to 5000 psi x-mas tree.

RIH:cc  
7/8/74

DIV. O.E.

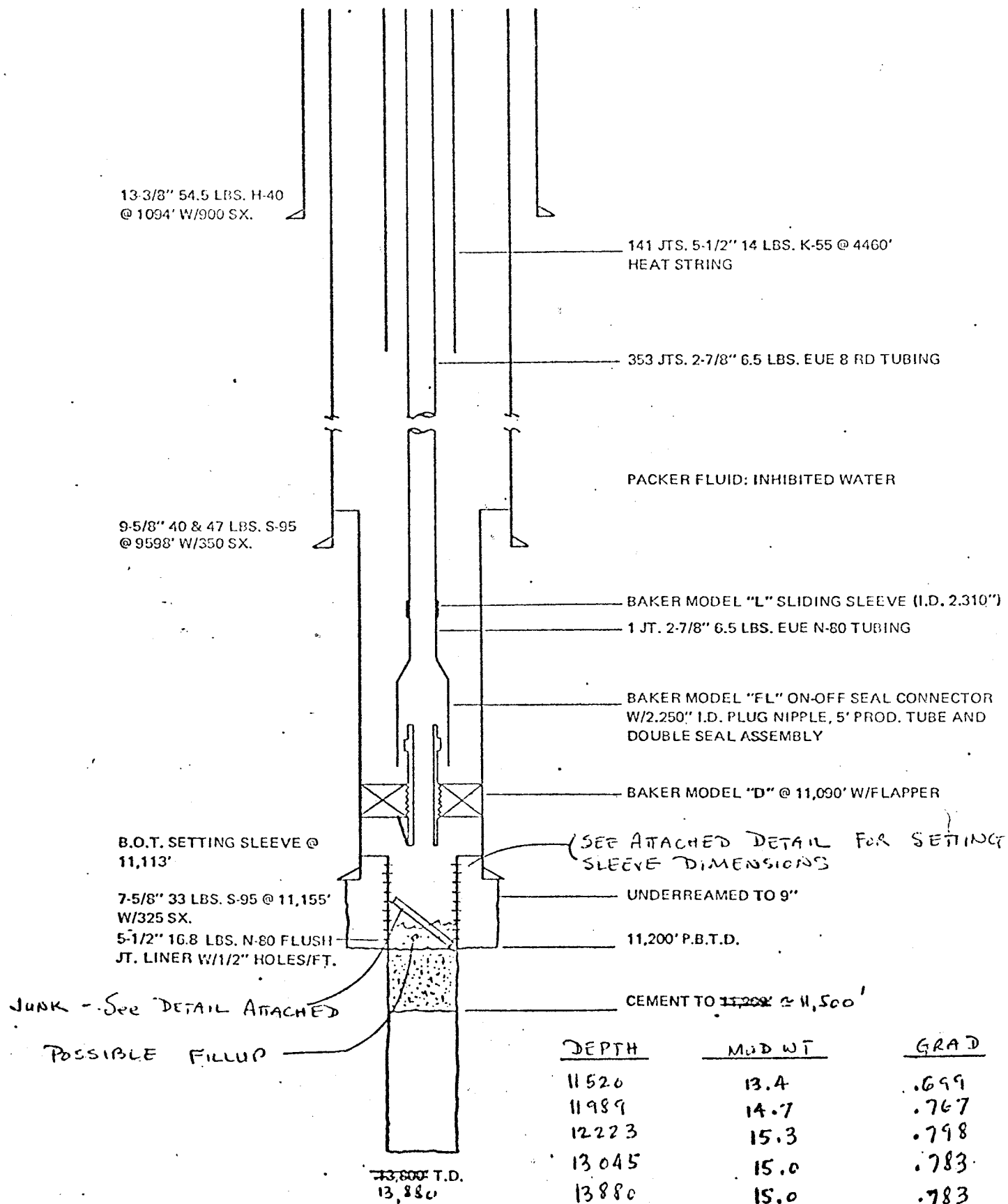
  
B. L. Faulk

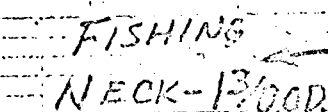
  
D. S. Wartick

  
J. S. Mize

MURDOCK NO. 1  
E 1. 6218 K.B.  
K.B.-G.L. = 15'-0"

AS COMPLETED  
MARCH 20, 1971





BABBIT CELL & NUT - 1200  
12 1/8" OD 5" LONG - A

ADAPTER 34 O.D. 4 IN. LONG

SINKER BAR  
13/4 OD 30" LONG

STINKER BAR

13/4 OD 30 IN LONG

SINKER BAR 19 FT.  
1 3/4" O.D. 30" LONG TOTAL  
LENGTH

ADAPTER  
1 3/4" OD - 6" LONG

FISHING  
NECK 1 3/8 OD

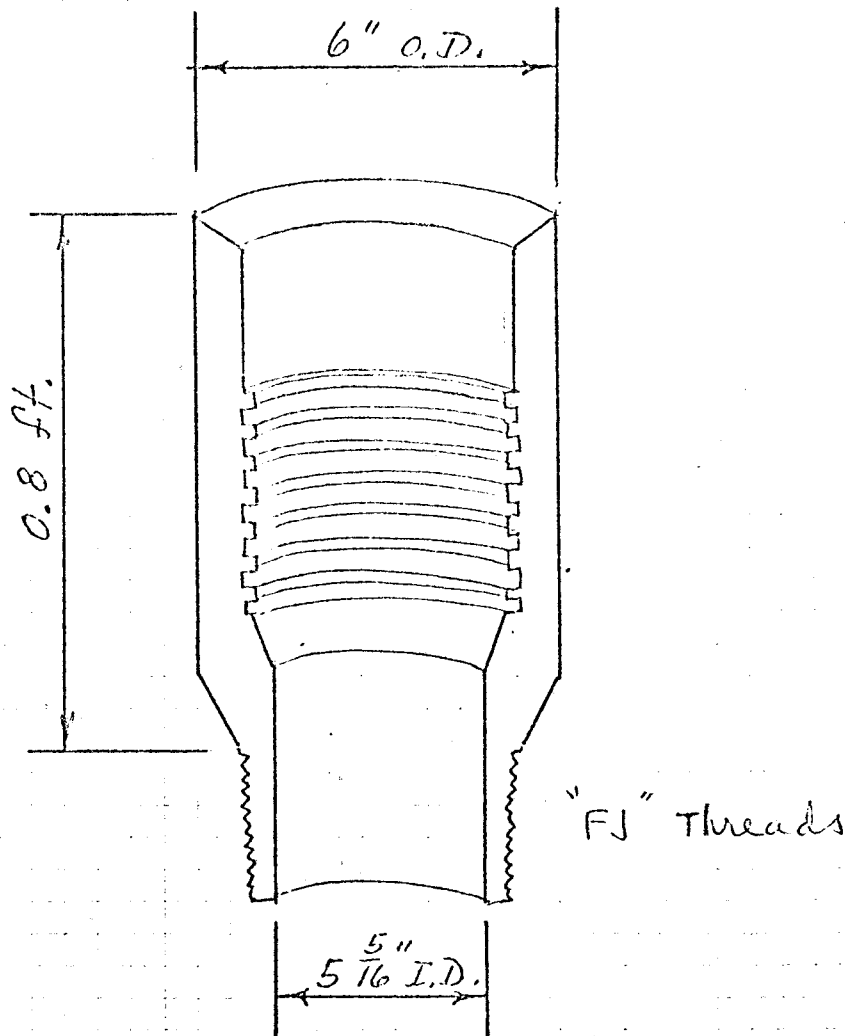
7/15 COLLAR LOC. 200100

13/4 LOGGING TOOL

13/4 BULL PLUG  
3" LONG

(M<sup>e</sup> Cullough Tools)

MURDOCK 1-26B5



BOT LINER SETTING SLEEVE  
ON TOP OF 5 1/2" PREPERF'D  
LINER - SLEEVE @ 11, 113

WESTERN E&P REGION  
ROCKY MOUNTAIN DIVISION

DISTRIBUTION:

☐ Drilling Foreman (2) ☒ Div. Production Supt. B.L. Faulk  
☒ Div. Drilling Supt. D.S. Warrick ☒ Purchasing Stores A.G. Flye

CASING AND CEMENTING PROGNOSIS  
FOR 1 STAGE CEMENT JOB ON 2930 FT. Production STRING  
Line

- Well description: 1-26135
- This prognosis is based on using a 15.3  $\pm$  0.2 ppg mud and setting casing @ 13880 feet and/or \_\_\_\_\_ feet into/below \_\_\_\_\_
- If on reaching casing point the above conditions do not apply, or if other well circumstances make using this prognosis inadvisable, the Shell drilling operations supervisor is to review the matter with Division supervision. Field personnel are encouraged to review prognosis with cementing company as early as practical.

4. Casing Program: Casing size 5 ". Casing to be run 1'-3' off bottom  
Make up, etc. allowance 300 ft. of 18 lbs. N80 SFJP  
Surface to \_\_\_\_\_ ft. of \_\_\_\_\_ lbs. \_\_\_\_\_ (Gauge joints)  
\*10950 to 13200 ft. 2250 ft. of 18 lbs. N80 SFJP  
13200 to 13880 ft. 680 ft. of 18 lbs. 50095 SFJP  
to \_\_\_\_\_ ft. of \_\_\_\_\_ lbs. \_\_\_\_\_  
\*Top of Line House to be lbs. Drift casing to 4.151"  
at 10950  $\pm$  10' to avoid lbs. check stenciling to verify  
perforating problems lbs. wt & gr. Clean threads  
to \_\_\_\_\_ ft. of \_\_\_\_\_ lbs. and have visually inspected  
to \_\_\_\_\_ ft. of \_\_\_\_\_ lbs. \_\_\_\_\_

Total: 3230 ft.

Flag jt. @ \_\_\_\_\_ ft. Casing wt. in air: 53,000 lbs. Cost 15000 at Location

5. Casing Hardware: Float shoe type: Howco Differential Fill or eq.  
Float collar 3 joint(s) above shoe. Collar type: As Above  
Centralizers 6 feet above shoe. Also, every 350 ft from 13700 ft. to 11000 ft.  
Estimated number of centralizers: 22+2 (Locate over collars.) Scratchers every \_\_\_\_\_ ft. to cover \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft. Also, from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. DV tool located @ \_\_\_\_\_ ft. Type: \_\_\_\_\_  
Other equipment: Run two solid bar centralizers in lap area

6. Preflush (non-acidic): Volume: 50 ft<sup>3</sup> Type: Cement mixed @ 14.0 ppg

7. Cement: First stage: Type: Class G + 1.25% D31 + 1% gel + \*% R5

Retard as required for 4 hours pumpability @ 250 °F.

Accelerate: ☐ As required for \_\_\_\_\_ hours WOC time.

☐ Not critical.

Friction reducer: ☒ Establish turbulent flow @ 3+ bbls./min.

☐ Not required.

Lost circulation material: \_\_\_\_\_

Second stage/tail in cement: Type: \_\_\_\_\_

Retard as required for \_\_\_\_\_ hours pumpability @ \_\_\_\_\_ °F.

Accelerate: ☐ As required for \_\_\_\_\_ hours WOC time.

☐ Not critical.

Friction reducer: ☐ Establish turbulent flow @ \_\_\_\_\_ bbls./min.

☐ Not required.

Lost circulation material: \_\_\_\_\_



8. Cement Volume: **★ See Note Below**

First stage: Base on caliper log/experience and use sufficient to:

- ☐ Cover \_\_\_\_\_ formation plus \_\_\_\_\_ ft.  
☐ Circulate to surface. Minimum volume \_\_\_\_\_ sacks, based on  
☐ Reach \_\_\_\_\_ ft.

Second stage/tail in cement: Base on caliper log/experience and use sufficient to:

- ☐ Cover \_\_\_\_\_ formation plus \_\_\_\_\_ ft.  
☐ Circulate to surface. Minimum volume \_\_\_\_\_ sacks, based on  
☐ Reach \_\_\_\_\_ ft.

9. Casing Running and Cementing Operation:

The procedures outlined in the Denver Area's "Tubular Goods Running and Cementing Guide," October 1967, are to be followed. The following specific instructions are added.

10. Reciprocation:

- ☒ Do not reciprocate.  
☐ Reciprocate till just prior to bumping plug. Do not exceed \_\_\_\_\_ lbs. additional tension from drag and cement weight.

11. Displacement:

Displace cement with Mud @ 3+ bbls./min. (Turb flow). Rate may be exceeded while "chasing" cement.

Do not exceed 3000 psi while displacing and pipe is reciprocating and do not exceed 3000 psi when bumping plug.

Stop top plug by:

- ☒ Bumping plug, however limiting overdisplacement to 2 bbls.  
☐ Bumping plug when measuring accuracy cannot be established.

12. Temperature Survey:

- ☐ Run temperature survey in any event.  
☐ Run temperature survey if LC experienced.  
☒ Do not run temperature survey.

**★ Calculate Cement Volume as follows:**  
 Caliper Volume + 25% excess  
 + Volume from Float to Shoe  
 + Volume of liner lap  
 + 200' of fill inside 7 7/8" above  
 + 50 ft<sup>3</sup> to be used as preflush

13. Second Stage:

On second stage break circulation

- ☐ As soon as practical (use low rates).  
☐ Wait \_\_\_\_\_ hours after bumping plug.

On second stage mix and displace cement

- ☐ As soon as practical.  
☐ Wait \_\_\_\_\_ hours after bumping plug.

14. Lost Circulation:

Follow procedures in "Guide"; however, if LC occurs on final string, do not release rig until temperature survey establishes acceptable cement top.

15. If it will be necessary to hydraulically fracture the well, the allowable casing pressure is \_\_\_\_\_ psi based on the following conditions:

Frac fluid temp. \_\_\_\_\_ °F, wt. \_\_\_\_\_ lb./gal.

Tension D.F. \_\_\_\_\_ Burst D.F. \_\_\_\_\_

**Cement company should run pump time test and 24hr compressive strength test at 200°F on samples of field blend catch wet and dry cement samples. Do not slug pipe before clearing cement top**

Prepared by: Dm Howell

Approved: \_\_\_\_\_

Drilling Superintendent

Date: 7/18/74

1-2635  
CASING & LINER TESTING PROCEDURE

This procedure is based on a 15.3 #/gal mud weight.

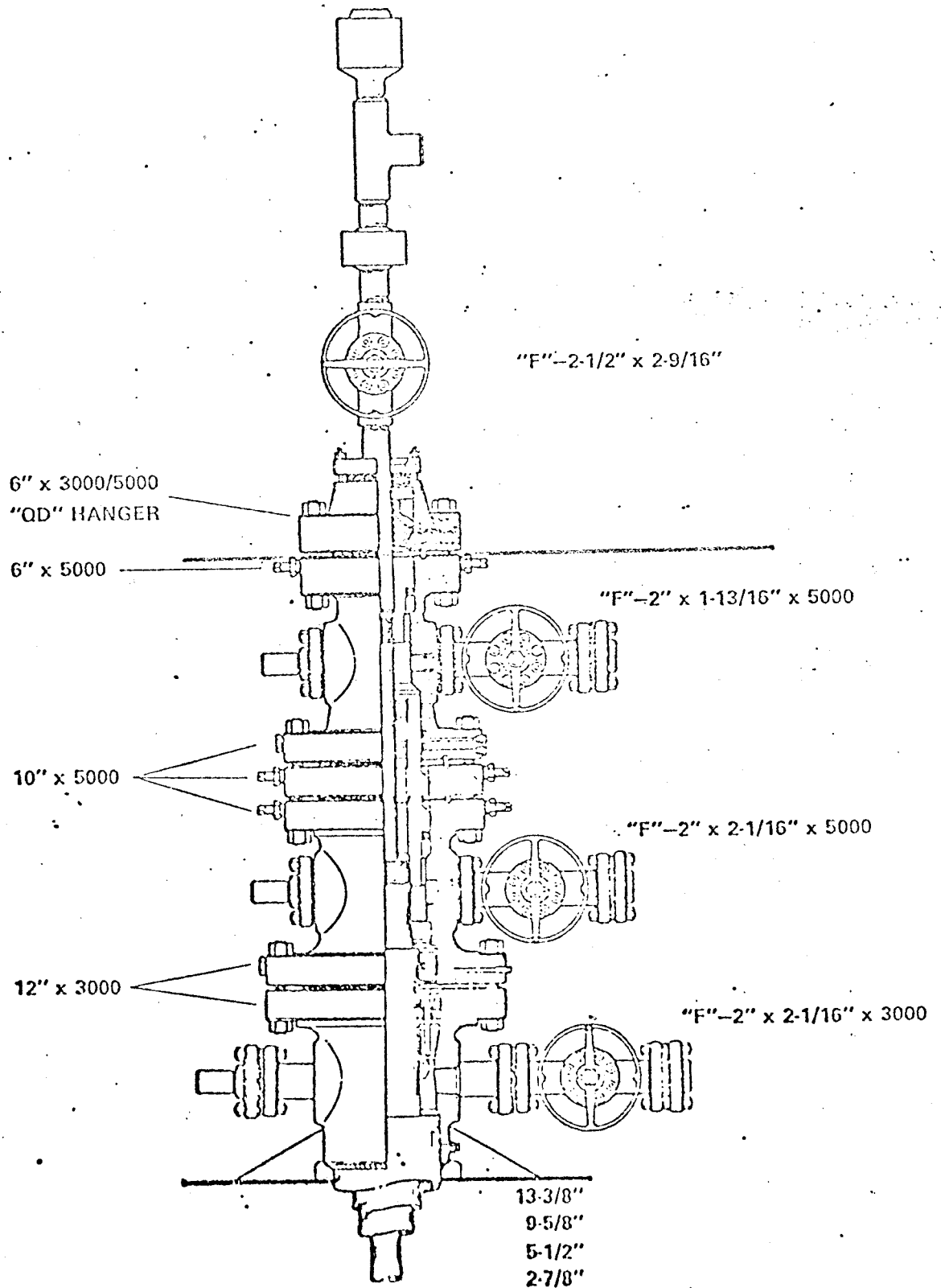
1. Clean out to 5" liner top. Check that <sup>13 7/8</sup> x 9 5/8" annulus is kept full of wtr during all pressure testing. Close pipe rams and test lap to 1500 psi for 15 minutes. Squeeze lap if necessary.
2. Clean out 5" liner to 17750 ~~Electric welder~~. ~~Consult Division on P&ID~~. Test entire liner with 1500 psi surface pressure. If liner leaks, isolate and squeeze.
3. Run <sup>7 5/8</sup> sqz tool to 10900. Displace mud inside DP to 10600 with water and set sqz tool. Bleed off 3715 psi differential using a 10,000 psi WP control head. ~~This procedure will test liner lap with \_\_\_\_\_ psi inflow pressure.~~ Test for 30 minutes. If inflow occurs, notify Division. If no inflow occurs, reverse water out of DP through choke manifold.
4. ~~Pull sqz tool to \_\_\_\_\_ and set. Pressure annulus to \_\_\_\_\_ psi for 15 minutes. Unseat tool and pull to \_\_\_\_\_. Reset tool and pressure annulus to \_\_\_\_\_ psi for 15 minutes. Unseat tool and pull to \_\_\_\_\_. Reset tool and pressure annulus to \_\_\_\_\_ psi for 15 minutes. Unseat tool and POOH. If leaks occur during any stage of testing, consult Division.~~
5. Install 5 1/2" AP-FBB hanger and BPV in 10" - 5,000 x 10" - 5,000 psi AP spool.
6. Install tubing spool and Xmas tree.
7. MORT.

Approved:

Division Drilling Superintendent

MURDOCK 1-26B5

1-3--73



STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

# SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. 20100
2. NAME OF OPERATOR Shell Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1285' FNL and 1378' FEL Section 26		8. FARM OR LEASE NAME Murdock
14. PERMIT NO. 43-013-30049		9. WELL NO. 1-26B5
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6218 GL, 6233 KB		10. FIELD AND POOL, OR WILDCAT North Uinta Area
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Approx C NE/4 Section 26-T2S-R5W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) \*

As per attached revised prognosis

cc: USGS, Salt Lake City, Utah (for information)

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

*[Handwritten signature]*

18. I hereby certify that the foregoing is true and correct

SIGNED T.S. Mize TITLE Division Operations Engr. DATE 11/22/74

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

REVISION #3

REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5  
SECTION 26-T2S-R5W  
DUCHESNE COUNTY, UTAH

The original prognosis dated 7/8/74 should be revised as follows:

PERTINENT DATA:

ELEV: 6218' GL  
KB-GL: 27'  
TD: 13,880'

CURRENT STATUS:

Liner is set at 12,758 (Float Shoe); Liner hanger at 10,947'. Cement is drilled out to liner top only. Liner lap tested to 1500 psi in 14.8# mud. Hole is standing w/14.8# mud.

PROCEDURE:

14. a. MICR. Remove X-mas tree, install BOPE, remove BPV and pull Jt. of 5" heat string. Clean out 5" liner to 12,710' test entire liner with 1500 psi surface pressure on 14.8 ppg mud. If liner lap leaks, isolate and squeeze.
- b. Displace mud w/250 gal BJ mud flush followed by 500 bbl water followed by 150 gal BJ mud flush followed by water until returns are clean and clear. SI for 1 hour and observe for flow back. Pressure test w/3000 psi. Spot 40 bbl 2% NaCl water in bottom. POOH.
15. Run CBL & PDC logs from PETD to 10,000'. Hold 3000 psi on csg while running CBL.
16. On electric line run and set 7 5/8" Baker Model "D" pkr w/flapper at 10,922' or 25' above liner top.
- 17 - 24 No Changes
25. Perforate from top down one hole at each of the following depths; (Depths refer to CNL-FDC log dated 10/24/74.) May be perforated from bottom up provided perforations from 11,181 to 12,174 are shot first and shot from top down. Perforate unidirectionally using top, middle, and bottom magnetically decentralized 2" steel tube carrier guns. Use Schlumberger Hyperjet or Harrison "RT" charges.

REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5  
SECTION 26-T2S-R5W  
DUCHESNE COUNTY, UTAH

2

11,181	11,402	11,599	11,713	11,899	12,075	12,203	12,338
11,182	11,403	11,600	11,714	11,900	12,125	12,204	12,339
11,184	11,407	11,601	11,746	11,907	12,126	12,205	12,340
11,185	11,408	11,602	11,747	11,908	12,127	12,206	12,341
11,215	11,440	11,603	11,748	11,949	12,128	12,326	12,342
11,216	11,441	11,648	11,749	11,950	12,156	12,327	12,343
11,246	11,442	11,649	11,762	11,958	12,157	12,328	12,344
11,247	11,443	11,653	11,763	11,959	12,158	12,329	12,345
11,248	11,450	11,654	11,830	11,960	12,159	12,330	12,346
11,373	11,451	11,655	11,831	11,989	12,160	12,331	12,483
11,374	11,498	11,656	11,832	11,990	12,168	12,332	12,484
11,384	11,499	11,657	11,863	11,995	12,169	12,333	12,485
11,385	11,500	11,665	11,864	11,996	12,170	12,334	12,486
11,386	11,501	11,666	11,865	12,014	12,171	12,335	12,487
11,387	11,502	11,680	11,897	12,015	12,172	12,336	
11,401	11,598	11,681	11,898	12,074	12,173	12,337	

Total 126 perfs

26. Acid treat gross perforated intervals 11,181' to 12,487' w/37,884 gals (902 bbls) 15% HCl as follows:

- Pump 10 bbls 15% HCl.
- Drop two 7/8" RCN ball sealer (s.g. 1.24) then pump 7 bbls 15% HCl.
- Repeat Step b. 125 more times for a total of 875 bbls acid and 250 ball sealers.
- Pump 10 bbls acid without unibeads.
- Flush w/3822 gals (91 bbls) fresh water containing 165# NaCl and 3 gals G-10/1000 gals.

NOTES:

- All acid except last 10 bbls to contain the following additives per 1000 gals:  
3 gals G-10, 3 gals C-15, 3 gals J-22, 30 lbs OS-160 Wide Range Unibeads, and 30 lbs OS-160 Button Unibeads. Last 10 bbl acid to contain all the above additives except Unibeads.
- Pump at a maximum rate of 8 BPM. Do not exceed 8900 psi surface pressure.
- Heat all fluids to 80F.
- If ballout occurs before all acid is injected into the formation, pressure up to 9500 psi, hold for 3 minutes, bleed back and inject remainder of acid.

REENTRY PROGNOSIS  
SHELL MURDOCK 1-26B5  
SECTION 26-T2S-R5W  
DUCHESNE COUNTY, UTAH

3

5. Hold 3000 psi on csg-tbg annulus.

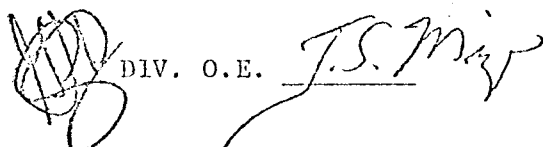
27 - 30. No change in original prognosis.

*RIH*

RIH:sy  
11/21/74



B. L. Faulk



DIV. O.E.

STATE OF UTAH

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

OIL &amp; GAS CONSERVATION COMMISSION

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. 20100
2. NAME OF OPERATOR Shell Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1285' FNL and 1378' FEL Section 26		8. FARM OR LEASE NAME Murdock
14. PERMIT NO. 43-013-30049		9. WELL NO. 1-26B5
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6218 GL, 6233 KB		10. FIELD AND POOL, OR WILDCAT North Uinta Area
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Approx C NE/4 Section 26-T2S-R5W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

See attachment

cc: USGS, Salt Lake City, Utah (for information)

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Division Operations Engr.

DATE 4/30/75

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:



STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

### SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

<b>1.</b> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> 20100	
<b>2. NAME OF OPERATOR</b> Shell Oil Company		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b> 	
<b>3. ADDRESS OF OPERATOR</b> 1700 Broadway, Denver, Colorado 80290		<b>7. UNIT AGREEMENT NAME</b> 	
<b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1285' FNL & 1378' FEL Section 26		<b>8. FARM OR LEASE NAME</b> Murdock	
<b>14. PERMIT NO.</b> 43-013-30049		<b>9. WELL NO.</b> 1-26B5	
<b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 6218 GL, 6233 KB		<b>10. FIELD AND POOL, OR WILDCAT</b> North Uinta Area	
		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> Approx C NE/4 Section 26-T2S-R5W	
		<b>12. COUNTY OR PARISH</b> Duchesne	<b>13. STATE</b> Utah

16.

#### Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

##### NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐  
☐  
☒  
☐

PULL OR ALTER CASING

☐  
☐  
☐  
☐

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other)

##### SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☐  
☐  
☒

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

☐  
☐  
☐

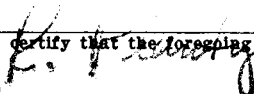
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) \*

See attachment

18. I hereby certify that the foregoing is true and correct

SIGNED



TITLE

Div. Ops. Engr.

DATE

OCT 09 1978

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS, Salt Lake City, Utah (for information)

\*See Instructions on Reverse Side

CO, PB, PERF & STIM

SHELL OIL COMPANY

FROM: 8/10/77 - 9/8/78

LEASE

MURDOCK

DIVISION

WESTERN

COUNTY

DUCHESNE

NORTH UTAH AREA

WELL NO. 1-26B5

ELEV. 6233 FB

STATE UTAH

UTAH

NORTH UTAH AREA

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

"FR" TD 13,880. PB 12,720. AFE #424607 provides funds to CO, plug back, perf & stim. MI&RU WOW #19 & bled press off tbg & csg. Pmp'd 200 bbls prod wtr (50 down tbg). Installed & tested BOP's. PU tbg & unlatched from Mdl D pkr. Circ'd hole vol w/prod wtr. SI for night. AUG 10 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. POOH w/tbg - had tight spot @ 4580. Layed down mandrels. Removed BOP's & SM tbg spool. Pulled & layed down 4316 5-1/8" 17# heat string (136 jts) SI overnight.

AUG 11 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. Couldn't get caliper tool. PU Bkr 7-5/8 pkr picker & RIH; no tight spts encountered. Milled on Mdl D @ 10,930 4-1/2 hrs & Mdl D was free. SI well.

AUG 12 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. 8/12 POOH w/pkr picker & remains of Mdl D pkr & LD. RIH w/Bkr 7-5/8 full bore & stop'd @ 7-5/8 liner hanger & rev circ'd w/100 bbls prod wtr to clean off liner top. Set pkr @ 8770 (40' into 7-5/8 liner). Press'd annulus to 2000# twice; both times press drop'd to 1000# in 1-1/2 mins & to 500# in 3 mins. Repress'd to 2000# & no press incr on outside 9-5/8 csg. Released press & pkr & pulled 2 jts 2-7/8. SI well. 8/13 Rev circ'd w/50 bbls. POOH & LD full bore. RIH w/4-1/8 mill; had to mill & work pipe to get into 5" liner top. Ran mill to 11,180 w/o hit'g anything. Circ'd btms up. Pulled 20 jts 2-7/8 tbg & SI well.

AUG 15 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. POOH & LD mill. PU 7-5/8 full bore pkr & ran 40' into 7-5/8 liner & set @ 8770. Press'd tbg to 3000# to test 5" BP, 5" liner top & 7-5/8 liner; held w/o press drop. Pmp'd down 9-5/8 csg & est inj rate of 2 B/M @ 2000 psi. Released press; csg flwd back 1/2 hr. Released pkr & circ'd 75 bbls to clean up. Pulled 100 stds tbg & SI well.

AUG 16 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. POOH & 7-5/8 pkr. RIH w/9-5/8 full bore to 8700'; 29' above 7-5/8 liner top. Set pkr & tested down tbg to 2000#, ok. Released pkr & pulled up to 7460 & set. Tested down tbg to 3000#, ok. Reset pkr @ 6120, 6840, 6900, 6960, 6780, 6720, 6660 & 6000. Est'd that 9-5/8 csg is ok below 6960 & above 6600. All other tests showed csg leaks from 6600-6960. Reset pkr @ 6250. SI well.

AUG 17 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. No report.

AUG 18 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. 8/17 MI&RU Hal & filled hole w/prod wtr. Pmp'd 10 bbls frh wtr pad & est inj rate of 3 B/M @ 1100 psi. Mixed 100 sx "thick set" cmt (21 bbls slurry) & flushed w/10 bbls frh wtr & 90 bbls prod wtr. Max rate 5 B/M @ 2000 psi. Went to 0 psi when stop'd pmp'g. WOC 2 hrs. Repeated as above; only difference was inj rate was 4 B/M @ 1100 psi. WOC 4 hrs. Filled hole & est inj rate of 3 B/M @ 1100 psi w/10 bbls frh wtr. Mixed 200 sx Class "G" cmt containing .6% Halad 9. After cmt cleared pkr, rate slowed. Staged several times; could not maintain any press. Overflushed cmt by 10 bbls. ISIP 300 psi; fell to 0 in 15 mins. 8/18 Filled hole w/1 bbl. Est inj rate @ 3 B/M @ 2000 psi. Mixed 200 sx Class "G" cmt containing .6% Halad 9. Chased w/40 BW @ 3 B/M to clear pkr. Slowed down to 1 B/M for 10 bbls flush & 1/4 B/M for 5 bbls flush. Staged 4 times. FPP 2000 psi @ 1/4 B/M. 20-min SITP 1250#. Left well SI; WOC.

AUG 19 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

AUG 22 1977

TD 13,880. PB 12,720. 8/19: WOC 24 hours. 8/20: Prep to pull pkr. SITP 200 psi. Press tbg to 2000 psi. POOH Layed down pkr. Picked up 8-1/2" bit. RIH on 2-7/8" tbg. Found top cmt @ 6600'. Established reverse circ. Drilled out 60' fair cmt in 45 min. Returns gassey. SI

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

AUG 23 1977

TD 13,880. PB 12,720. CO to 6730. RI to 6889. No cmt from 6730 to 6889. Test csg to 6889 w/3000 psi for 15 min. No press drop. Drilled cement from 6889 to 6960 in 1 hr. No cmt below 6960. Press test entire hole to 2000 psi for 20 min. No drop. Ran bit to top of liner @ 8729 w/o any cmt. POOH. Picked up 4-1/8" mill. Ran 100 stds. SI overnight.

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. Prep to perf. RIH w/4-1/8" mill to top of CIBP. No obstruction on liner tops. RU OWP to run CBL. Tied into original CBL on 7-5/8" liner @ 10,000+. Logged to 5300'. Fair to good bonding in 9-5/8" from 7-5/8" liner top @ 8729 to top of cmt @ 5550. POOH. AUG 24 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. Prep to perf. Correction to report 8/23/77. CBL showed fair to good bonding from 7100 up to cmt top @ 5550. Picked up 3-1/8" csg gun. RIH to perf. Could not get below 11,006. POOH. Picked up 4-1/8" mill & RIH on 2-7/8" tbg. Milled to top of CIBP @ 11,105'. Reverse circ w/300 bbls prod wtr. Circ out a chunk of rubber. Spotted 40 bbls clean prod wtr on bottom, 3 gals J-22 per 1000 gal. SI

AUG 2 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)  
AUG 26 1977

TD 13,880. PB 12,720. Prep to AT. RIH OWP. Perf as follows: Run #1: Perf 22 holes - 11,095 up to 10,795. Run #2: Perf 22 holes - 10,787 up to 10,547. Run #3: Perf 22 holes - 10,544 up to 10,345. Run #4: Perf 15 holes - 10,334 up to 10,170. Picked up Baker 7-5/8" Full Bore pkr plus 45 seating nipples & RIH on 2-7/8" tbg. Reversed out. Tested tbg to 7500 psi, ok. Pulled S.V. Set pkr @ 10,096. Installed tbg spool. Landed tbg on donut w/20,000# tension. Tested tree. SI

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)  
AUG 29 1977

TD 13,880. PB 12,720. 8/26: Acidized gross perfs 10,170-11,095 w/435 bbls 15% HCl as follows: Pumped 50 bbls acid w/15 ball sealers. Pumped 5 bbls acid containing 1#/gal benzoic acid flakes. Repeated ball sealer stage 8 times. Repeated block stage 7 times. Flushed w/100 bbls prod wtr. Acid contained normal additives and 1-5# 20-40 RA sand per 1000 gal acid. Flush wtr gelled. Had 1500 psi on csg. Limited tbg press to 8000 psi. Max press 7600, min 5100, avg 6400. Max rate 10.5 BPM, avg rate 9.5 BPM, min rate 9.0 BPM. ISIP 4000, 15 min SITP 3000. Obtained GR Log. Indicated over 90% of perfs treated. 3 hr SITP 1200, opened well on 20/64" choke for 1-1/2 hr - FTP 400 psi, Opened to 22/64" for 1 hr - FTP 350. Well had not cleaned up. Backed down w/60 bbls prod wtr. 2 BPM @ 2500 psi. SI. 8/27: 14 hr SITP 1200 psi. Flowed 51 BO & 116 BW, 800 FTP 12/64". Opened to 25/64" choke. Turned well over to prod. 8/28: Flowing.

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. OB 12,720. On 24 hr test, well prod 53 BO, 113 BW, 264 MCF Gas w/800 press. AUG 30 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 85 BO, 443 BW, 264 MCF gas w/200 psi. AUG 31 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 90 BO, 478 BW, 264 MCF gas w/175 psi. SEP 01 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 0 BO, 0 BW,  
0 MCF gas w/175 psi.

SEP 02 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 69 BO, 1025 BW,  
264 MCF gas w/100 psi.

SEP 06 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On various tests, prod:

Rept Date	Hrs	BO	BW	MCF Gas	Press
9/2	24	0	439	256	100
9/3	24	371	404	263	100
9/4	24	0	240	256	100
9/5	24	71	0	263	100

SEP 07 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 54 BO, 710 BW,  
710 MCF gas w/100 psi.

SEP 08 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 33 BO, 381 BW,  
256 MCF gas w/150 psi.

SEP 09 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 48 BO, 340 BW,  
390 MCF gas w/150 psi.

SEP 12 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On various tests, prod:

Rept Date	Hrs	BO	BW	MCF Gas	Press
9/9	24	47	328	256	150
9/10	24	30	234	133	150
9/11	24	41	295	133	150

SEP 13 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 28 BO, 280 BW,  
133 MCF gas w/100 psi.

SEP 14 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 6 BO, 284 BW,  
133 MCF gas w/100 psi.

SEP 15 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 40 BO, 232 BW,  
133 MCF gas w/100 psi.

SEP 16 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, prod 15 BO, 246 BW,  
133 MCF gas w/100 psi.

SEP 19 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test 9/16, prod 40 BO,  
249 BW, 133 MCF gas w/100 psi. On 24-hr test 9/17, prod  
26 BO, 228 BW, 133 MCF gas w/100 psi.

SEP 20 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test 9/18, prod 26 BO, 231  
BW, 133 MCF gas w/100 psi. On 24-hr test 9/19, prod 24 BO,  
232 BW, 133 MCF gas w/100 psi.

SEP 21 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 34 BO, 202 BW, 133 MCF gas w/100 psi. SEP 22 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 3 BO, 145 BW, 133 MCF gas w/100 psi. SEP 23 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 1 BO, 159 BW, 133 MCF gas w/100 psi. SEP 26 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On various tests, prod:

Rept Date	Hrs	BO	BW	MCF Gas	Press
9/23	24	29	208	133	100
9/24	24	51	280	133	100
9/25	24	17	234	107	100

SEP 27 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 29 BO, 191 BW, 107 MCF gas w/100 psi. SEP 28 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 67 BO, 165 BW, 107 MCF gas w/100 psi. SEP 29 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 10 BO, 137 BW, 75 MCF gas w/100 psi. SEP 30 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 25 BO, 147 BW, 107 MCF gas w/100 psi. OCT 03 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test 9/30, prod 0 BO, 164 BW, 107 MCF gas w/50 psi. On 24-hr test 10/1, prod 29 BO, 174 BW, 107 MCF gas w/50 psi. OCT 04 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test 10/2, prod 0 BO, 0 BW, 116 MCF gas w/50 psi. 10/3 SI. OCT 05 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 3 BO, 136 BW, 186 MCF gas w/100 psi. OCT 06 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 16 BO, 193 BW, 132 MCF gas w/100 psi. OCT 07 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 12,720. On 24-hr test, prod 15 BO, 203 BW, 134 MCF gas w/100 psi. (Report discontinued until further activity) OCT 10 1977

Shell-Murdock 1-26B5 (CO, PB, Perf & Stim) TD 13,880. PB 11,105 (CIBP). (RRD 10/10/77) MI&RU CWS #25. TP 100#; bled to pit. Pmp'd 60 BW down tbg @ 2000 psi; unable to kill well. Press bled from 2000 to 300# in 15 mins. Opened well to pit 1 hr; well dead. Removed 10,000# WH & 6" x 10" spool. Installed 10" BOP. Set down on unloader & tbg blew for 5 mins. Released full bore pkr & pulled 4 stds tbg. Pkr drag'g & swb'g fluid. SI well. OCT 12 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). 800 psi & CP 500 psi:  
bled well to pit. Pulled 16 st tbg; pkr still drag'g.  
Pkr came free (out of the 7-5/8" csg) & well started to  
flw oil cut wtr. Circ'd 400 BW (lost 60 bbls); well dead.  
Fin'd POCH. Ran 6000' in hole w/7-5/8" full bore pkr &  
gas mndrls, then SI for night. OCT 13 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). TP & CP 500#; bled to pit.  
Fin'd run'g tbg. Set Bkr full bore @ 10,132, unloader sub  
& +45 SN above pkr & pkr set w/21,000# tension. Mndrls  
w/valves set @ foll'g depths: 10,100, 9600, 9095, 8586,  
8049, 6953, 5232 & 2880. Installed 6" x 10" spool & 5000#  
WH. Hooked up gas inj & flwline. RD CWS #25. OCT 14 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). Gauge not available.

OCT 17 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
10/14	18	1	633	0	1210
10/15	24	1	400	799	1050
10/16	24	0	354	0	1050

OCT 18 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
1 BO, 282 BW, 799 MCF gas w/1000 psi inj press. OCT 19 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted 5  
BO, 282 BW, 804 MCF gas w/1050 psi inj press. OCT 20 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted 6  
BO, 291 BW, 804 MCF gas w/1050 psi inj press. OCT 21 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
32 BO, 268 BW, 804 MCF gas w/1050 psi inj press. OCT 24 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
10/21	24	1	229	793	1050
10/22	SI				
10/23	24	132	116	348	1120

OCT 25 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
0 BO, 234 BW, 348 MCF gas w/1190 psi inj press. OCT 26 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
1 BO, 368 BW, 800 MCF gas w/1180 psi inj press.

OCT 27 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
26 BW, 341 BW, 800 MCF gas w/1180 psi inj press. OCT 28 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
89 BO, 654 BW, 857 MCF gas w/1220 psi inj press. OCT 31 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
117 BO, 677 BW, 920 MCF gas w/1250 psi inj press. NOV 01 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 11,105 (CIBP). On 24-hr test, gas lifted  
108 BO, 623 BW, 920 MCF gas w/1250 psi inj press. NOV 02 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. Ran fluid density RA tracer &  
temp survey - perfs from 10,170-11,095. CIBP @ 11,105.  
Found major oil entry w/60 BO/D & 60 BW/D @ 10,321; @  
10,241-10,251 (3 perfs), 0 oil & 200 BW/D; @ 10,274-10,282  
(3 perfs), 0 oil & 200 BW/D; @ 10,345, 0 oil & 60 BW/D.  
No fluid entry below 10,345. NOV 03 1977

Shell-Murdock 1-26B5

TD 13,880. PB 12,720. No report. 11/4/77

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, gas lifted 67 BO,  
491 BW, 964 MCF gas w/1220 psi inj press. NOV 07 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
11/4	24	78	491	864	1220
11/5	24	67	475	899	1230
11/6	24	79	458	911	1220

NOV 08 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720. On 24-hr test, gas lifted 90 BO,  
500 BW, 911 MCF gas w/1210 psi inj press.  
(Report discontinued until further activity) NOV 09 1977

Shell-Murdock 1-26B5  
(CO, PB, Perf & Stim)

TD 13,880. PB 12,720 (RRD 11/9/77) Prior to work during  
6/77, well avg'd 50 BO, 340 BW & 450 MCF gas/day. On 24-hr  
test 7/78 after work, well prod 30 BO, 160 BW & 375 MCF gas.  
FINAL REPORT SEP 23 1978



CO, RUN NEW LINER &amp; RP&amp;AT

SHELL OIL COMPANY

ALTAMONT

LEASE MURDOCK

WELL NO. 1-26B5

DIVISION WESTERN

ELEV 6233 KB

COUNTY DUCHESNE

STATE UTAH

FROM: 8/19/74 - 8/28/74

UTAHALTAMONT

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

"FR" TD 13,880. PB 11,200. Prep to circ 9.7 ppg mud. AFE Nos. 516254 and 516257 provide funds to CO, run new liner and reperf and acid treat.

8/17: Prep to flow well to pit. MI&RU Western Oilwell Service on 8/16/74.

8/18: Prep to circ 9.7 ppg mud. Flwd well to pit and killed well. Installed BOP and tested to 5000 psi, OK. Pmpd 400 bbls 9.7 ppg mud in csg. Unlatched from on-off connector and let well equalize. Pulled and laid down 4 jts tbgs w/insert rod pump.

8/19: Rig SD over Sunday.

AUG 19 1974

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Laying down heat string. Circ hole w/9.7 ppg mud. Latched onto on-off connector and torqued pkr to right - tbgs freed. Attempted to relatch pkr - could not latch. Pulled out of hole - did not recover btm half of on-off connector or Baker seal assembly. Installed BPV, removed BOP and tbgs spool, installed BOP and removed BPV. Tested BOP to 5000 psi, OK.

AUG 20 1974

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Picking up fishing tools. RU csg crew, pulled and laid down 5-1/2" heat string and SD for rig repairs.

AUG 21 1974

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Running pkr picker. Picked up Bowen left-hand release overshot, bumper sub and ran on tbgs, latching onto on-off connector. Freed pkr seal assembly, pulled out of hole and laid down pkr, seal assembly and overshot. Picked up pkr picker, bumper sub, DC's and started running on tbgs.

AUG 22 1974

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Drilling. Ran pkr picker to pkr, RU drlg equipment. Drilled on pkr 3 hrs, circulated hole clean.

AUG 23 1974

Shell-Murdock 1-26B5

(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200.

8/24: Laying down tbgs. Finished milling over pkr. Circ hole cln and started singling down tbgs.

8/25: SI, WO drlg rig. Finished laying down tbgs, DC's, bumper sub and pkr. Filled hole w/9.7 ppg mud. WH has 5-1/2" donut w/1 jt 5-1/2" csg w/BPV, tbgs spool w/capped flange and valve. Did not recover jk pusher on pkr. Released rig at 12 PM, 8/24/74. (Reports discontinued until further activity.)

AUG 26 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. (RRD 8/26/74). Testing BOP's.  
Finished RU Brinkerhoff #56 10/1/74. Changed rams and  
picked up 3-1/2" DP and 12- 4-3/4" DC's. Started  
testing BOP's.

OCT - 2 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Running in w/3-1/2" DP.  
Finished testing BOP's. Unnipped and installed new  
rings in stack and nipped up. Retested BOP's, OK.  
Tripped in w/6-1/2" mill and cont'd picking up 3-1/2"  
DP. Broke circ at 7500'. Ran to 10,900'± and to  
11,150.

OCT - 3 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Tripping in w/4-3/4" mill.  
Circ 4-1/4 hrs. Tested csg to 2500 psi for 15 min,  
OK. Milled up jk pusher, tagging top of liner hanger.  
Mud: (.504) 9.7 x 44 x 0.2

OCT - 4 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200.  
10/5: CO liner. Jarred on liner w/spear just below  
BOT liner hanger - stuck. Ran 4-3/4" mill inside of  
5-1/2" liner and CO to 11,161.  
Mud: (.514) 9.9 x 43 x 8.8  
10/6: Pulling wash tool. CO liner from 11,121-11,161 -  
mill quit at 11,161. Tripped in w/wash tool. Acdd  
perfs from 11,121-11,161 w/1500 gal 15% HCl and 7% HF  
inhibited w/9 gal C-15 and lost circ. Flushed liner w/  
40 bbls oil based mud and regained full returns.  
10/7: Tripping in w/jars. Circ 1-1/2 hrs, circ sml  
amt of acid and tr of Black Magic out of hole. Jarred  
on liner 1-1/2 hrs - stuck. Cut csg at 11,143.  
Mud: (.514) 9.9 x 44 x 8.6

OCT - 7 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,200. Washing over fish at 11,149.  
Tripped in w/spear and fished 45 min. Pulled out and  
laid down 36.20' of 5-1/2" liner. Tripped in w/wash  
pipe and started washing over fish. Pipe torquing  
until mud cond w/additives.

OCT - 8 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,210. Cond mud to lay plug.  
Washed over fish and rec'd add'l 49.23' of 5-1/2"  
liner (all jk rec'd w/spear).  
Mud: (.598) 11.5 x 48 x 8.6

OCT - 9 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 11,210. Building mud wt. CO to btm and  
plugged back w/100 sx Class "G" cmt. Pulled 7 stds to  
10,700. Sqzd 8 bbls in fm w/1900 psi. Let set 1 hr.  
Cond mud - building mud wt from 14.4 to 15.0+.  
Note: Logging tools in fish in good condition.  
Mud: (.748) 14.4 x 50 x 7.2

OCT 10 1974

Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,173. Pulling magnet. Built mud wt to 15.1 ppg while WOC. Tripped in and tagged cmt at 10,845. CO cmt to 11,173. Lost two cones. Ran in w/long skirted magnet. Mud: (.785) 15.1 x 52 x 6.4	OCT 11 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,245. <u>10/12</u> : Pulled out w/magnet, rec'g half of cone. Reran magnet rec'g very little iron. Ran mill and jk sub and milled on iron. Drld 16' and strapped out of hole making SLC: 11,144 = 11,195 (51' correction). Mud: (.790) 15.2 x 54 x 6.8 <u>10/13</u> : Finished out of hole w/mill at 11,195. Ran in w/6-1/2" bit and drld cmt. Changed bit at 11,243 and resumed drlg on very hard cmt. Mud: (.795) 15.3 x 49 x 4.0 (2#/bbl LCM) <u>10/14</u> : Reaming at 11,242. Drld cmt to 11,258 and pulled out for bit. Went in hole to 11,174 and hit cmt stringers at 11,181 and hd cmt at 11,206. Reamed cmt to 11,242. Mud: (.795) 15.3 x 52 x 5.2	OCT 14 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,284. Drilling. Finished reaming to 11,258. Drld to 11,266 and pulled up to 11,174. Reamed back to 11,266. Tripped for bit and resumed drlg. Lost approx 30 bbls mud on trip. Mud: (.795) 15.3 x 47 x 5.2 (2#/bbl LCM)	OCT 15 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,308. Drilling. Changed bit at 11,285 and resumed drlg. Mud: (.795) 15.3 x 49 x 5.4 (2#/bbl LCM)	OCT 16 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,423. Drilling. Tripped in w/new bit at 11,308. Mud: (.795) 15.3 x 45 x 5.2	OCT 17 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 11,570. Drilling. Drld 147'. Changed swivels and checked all 4-3/4" DC's, OK. Mud: (.790) 15.2 x 44 x 5.3	OCT 18 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	<u>10/19</u> : TD 13,880. PB 11,710. Drilling. Drld 140'. Changed BHA and inspected DC's. Mud: (.790) 15.2 x 47 x 5.6 (tr LCM) <u>10/20</u> : TD 13,880. PB 11,960. Drilling. Drld 250'. Lost 20 bbls at 11,945. Added walnut hulls. Mud: (.780) 15.0 x 44 x 5.4 (tr LCM) <u>10/21</u> : TD 13,880. PB 12,180. Drilling. Drld 220'. Lost 20 bbls at 11,920. Mud: (.769) 14.8 x 48 x 5.6 (2#/bbl LCM)	OCT 21 1974
Shell-Murdock 1-26B5 (CO, run new liner and RP&AT)	TD 13,880. PB 12,385. Drilling. Drld 205'. Mud: (.769) 14.8 x 45 x 5.4 (2#/bbl LCM)	OCT 22 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,600. Drilling. Drld 215'.  
Mud: (.769) 14.8 x 44 x 5.2 (2#/bbl LCM)

OCT 23 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,750. Circ, prep to log. Drld 150'.  
Short tripped to shoe.  
Mud: (.769) 14.8 x 44 x 5.6 (2#/bbl LCM)

OCT 24 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,760. Prep to run liner. Ran DIL,  
BHCS, FDC-CNL and GR logs.  
Mud: (.769) 14.8 x 48 x 5.2 (2#/bbl LCM)

OCT 25 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,760.  
10/26: Laying down 3-1/2" DP. Ran 43 jts (1813') of  
5" 18# N-80 SFJP liner including Howco diff. float shoe  
@ 12,758, Howco diff. float collar @ 12,710, Burns liner  
hanger @ 10,947. Pumped 5 bbls wtr ahead and cemented  
w/325 cu.ft. Class "G" cement treated w/1.25% D-3 plus 1%  
gel and R5. Bumped plug w/2000#, float held. Cleaned  
out cement 10,181-10,947. Tested lap w/1500 psi 15 min -  
OK.

10/28: WOCR. Laid down 3-1/2" DP and DC's.  
Installed 1 jt 5" heat string w/back pressure valve and  
nipped up x-mas tree. Released rig @ 6:00 AM 10/27/74.  
(Report discontinued until further activity.)

OCT 28 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,760. (RRD 10/28/74). RUCR. MI  
Western Oilwell Service Company rig #17 on 11/25/74 and  
started RU.

NOV 26 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,800. PB 12,760. Picking up tbg. Finished RU.  
Installed BOP and tested to 5000 psi. Broke all tbg  
collars. Clnd and redoped factory side of threads w/  
Baker seal. Picked up 4-1/8" bit and started picking  
up tbg.

NOV 27 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720.

11/28: Rig SD for Holiday. Picked up 1811' of tbg work string and 7-5/8" csg scraper. Picked up prod tbg and ran to liner top at 10,947. RU power swivel and DO liner top and started picking up tbg.

11/29: Picking up tbg. Rig SD for Holiday.

11/30: Circ out 14.8 ppg mud. On 11/29, ran bit to 12,286 and set down on hvy gel and bar. RU power swivel and drld and circ out bar to 12,720. Press tested csg to 1500 psi w/14.8 ppg mud. Circ out mud as follows: 250 gal B-J mud Flush, 500 bbls prod wtr, 150 gal B-J Mud Flush and 600 bbls prod wtr. Ran out of wtr. Returns dirty.

12/1: Prep to run heat string. On 11/30, circ hole w/600 BW - returns cln. Pulled out of hole laying down tbg tail, bit and scraper. RU Owp and ran CBL-PDC log from 12,692 to 10,000'. Held 3000 psi on csg while running CBL. Cmt bonding good. Ran Baker 7-5/8" Model "D" pkr w/flapper w/top at 10,930. RD OWP.

12/2: Prep to run heat string. Rig SD on Sunday. DEC 2 - 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720.. Running prod eqmt. RU csg and ran 137 jts 5-1/2" 14# K-55 csg w/tail to 4347. RD csg crew. Installed 5-1/2" BPV, removed BOP and installed tbg spool. Installed BOP and tested to 5000 psi, OK. Removed BPV and started running prod eqmt, testing to 7500 psi.

DEC 3 - 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI. Finished running prod eqmt as follows: All tbg 2-7/8" EUE 8rd, N-80 and all mandrels Camco KBMG w/type "E" dummies w/BK-2 latches. Ran Baker Model "C" plug holder w/Model "D" pushout plug in place w/tail at 10,963, 29' 2-7/8" OD NU 10rd nonperf'd prod tube, Baker anchor seal assembly w/two seal unit, Baker "EL", 2" on-off tool w/Otis "N" profile w/2.313" seal bore w/2.255" no go w/top at 10,924, 4' tbg sub w/7" centralizer, 3 jts tbg, mandrel #10HP829 w/top at 10,820, 7 jts tbg, mandrel #14HP625 w/top at 10,594, 29 jts tbg, mandrel #23HP7-2 w/top at 9691, 23 jts tbg, mandrel #18HP7-1 w/top at 8966, 22 jts tbg, mandrel #16HP7-1 w/top at 8209, 38 jts tbg, mandrel #13HP7-2 w/top at 7015, 55 jts tbg, mandrel #7HP7-1 w/top at 5289, 76 jts tbg, mandrel #5HP625 w/top at 2906, 92 jts tbg, 3' sub, 2' sub and two 10' subs, 1 jt tbg. Spaced out tbg, unlatched from on-off connector and circ annulus w/fresh trtd wtr. Latched onto on-off tool and landed tbg w/4000# set-down wt. Press'd tbg to 7500 psi for 1 hr, losing 200 psi. Installed BPV, removed BOP, installed 10,000# Xmas tree and tested to 10,500#. Pmpd diesel in 7" x 5" annulus. Sptd diesel in tree and tbg. Found one split jt of tbg (old leak in tbg) - leak in deep gouges in slip area. Released rig 12/3/74.

DEC 4 - 1974

PB 12,720

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI.

DEC 5 - 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI.

DEC 6 - 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI.

DEC 9 - 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI.

DEC 10 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI. (Reports discontinued  
until further activity.)

DEC 11 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. (RRD 12/11/74). Running sd pump.  
On 12/16, MI&RU slick line. Ran to 10,963 and attempted  
to knock out Model "B" pushout plug - could not knock out.  
RU Hot Oil Truck and press'd to 4750 psi - could not knock  
out plug.

DEC 17 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Prep to perf. Ran sd pump on  
slick line 3 times, rec'g metal cuttings. Press'd tbg  
to 5500 psi and knocked out tbg plug, following to PBTD.  
RD slick line.

DEC 18 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Perforating. RU OWP and perf'd  
1 hole each unidirectionally using top, middle and btm  
magnetically decentralized 2" steel tube carrier gun.  
All depths refer to CNL-FDC log dated 10/24/74. Run #1:  
Gun hung up w/btm at 11,112 - could not work free. Shot  
one shot at 11,111 and gun freed. RU fishing tools and  
ran back in hole, driving Baker knockout plug to PBTD.  
Ran perf gun and perf'd as follows: Run #1: 11,181,  
(Continued)

DEC 19 1974

Shell-Murdock 1-26B5

(Continued)

11,182, 11,184, 11,185, 11,215, 11,216, 11,246, 11,247, 11,248, 11,373, 11,374, 11,384, 11,385, 11,386, 11,387, 11,401, 11,402, 11,403, 11,407, 11,408, 11,440, 11,441, 11,442, 11,443, 11,450, 11,451, 11,498, 11,499, 11,500, 11,501, 11,502, 11,598, 11,599, 11,600, 11,601, 11,602, 11,603, 11,648, 11,649, 11,653, 11,654, 11,655. Perf'd 42 holes). Press from 900 to 930 psi. Run #2: 11,656, 11,657, 11,665, 11,666, 11,680, 11,681, 11,713, 11,714, 11,746, 11,747, 11,748, 11,749, 11,762, 11,763, 11,830, 11,831, 11,832, 11,863, 11,864, 11,865, 11,897, 11,898, 11,899, 11,900, 11,907, 11,908, 11,949, 11,950, 11,958, 11,959, 11,960, 11,989, 11,990, 11,995, 11,996, 12,014, 12,015, 12,074, 12,075, 12,125, 12,126, 12,127 Perf'd 42 holes). Press from 100 to 130 psi.

DEC 19 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Prep to flow. Tbg press 1500 psi. Finished perforating in one run 12,128-12,487 (42 holes). Tbg press 1700 psi, bled off to 0 psi. RD OWP and RU BJ. TP 3400 psi. AT gross perfs 11,181-12,487 w/37,884 gal 15% HCl, each 1000 gal contained 3 gal G-10, 3 gal C-15, 3 gal J-22, 30# OS-160 wide range and 30# OS-160 button Unibeads. Last 10 bbls did not contain Unibeads. Flushed w/3822 gal produced wtr. Each 1000 gal contained 3 gal G-10. Pumped acid as follows: pumped 10 bbls acid, dropped 2 7/8 RCN ball sealers, 1.24 gr. Pumped 7 bbls acid, repeated 2 ball sealers, 7 bbls acid 125 times. Pumped 10 bbls acid followed by flush. All fluids heated to 80 deg, held 3000 psi on csg. Max press 9800 psi, avg press 7300 psi, minimum press 5800 psi. Max BPM 9-1/2, avg BPM 7, min BPM 5. ISIP 4900 to 4800 in 5 min, 4600 in 10 min, 4400 in 15 min. Balled out w/598 bbls acid on formation and 148 balls. SD five times, total of 11 min to let balls drop off. Several breaks from 100-1000 psi. RD BJ.

DEC 20 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720.

12/21: Flowing. TP 3100 psi on 12/20. Opened to pit on 64/64" chk for 5 hrs. TP range from 400-500 psi. Flwd est 300 BO and 250 BW w/COR of 900. Last hr, flwd est 70 BO and 30 BW w/COR of 900. Turned to tank battery at 4 PM.

12/22: Flowing.

12/23: Flowing. On 24-hr test, flwd 520 BO, 4 BW and 566 MCF gas through 10/64" chk w/3500 psi FTP.

DEC 23 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 19-hr test,  
flwd 384 BO, 2 BW and 627 MCF gas through 8/64" chk  
w/3700 psi FTP.

DEC 24 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On various tests, flwd  
as follows:

<u>Rpt Date</u>	<u>Hrs</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Chk</u>	<u>FTP</u>
12/25	14	259	0	420	8/64"	4250
12/26	22	452	13	597	6/64"	3650

DEC 26 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 8-hr test, flwd  
127 BO, no wtr and 208 MCF gas through 6/64" chk w/4400  
psi FTP.

DEC 27 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 24-hr tests,  
flwd as follows:

<u>Rpt Date</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Chk</u>	<u>FTP</u>
12/28	197	7	442	6/64"	4000
12/29	301	0	744	6-8/64"	4000
12/30	175	0	510	6/64"	3900

DEC 30 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 7-hr test, flwd  
82 BO, no wtr and 147 MCF gas through 6/64" chk w/  
4000 psi FTP.

DEC 31 1974

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On various tests,  
flwd as follows:

<u>Rpt Date</u>	<u>Hrs</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Chk</u>	<u>FTP</u>
1/1	7	76	0	128	4/64"	3500
1/2	3	17	0	63	8/64" no gauge	

JAN - 2 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 24-hr test, flwd  
262 BO, no wtr and 357 MCF gas through 8/64" chk w/FTP  
not gauged.

JAN - 3 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI for larger treater.  
1/4: On 8-hr test, flwd 122 BO, no wtr and 176 MCF  
gas through 8/64" chk w/FTP not reported.  
1/5: On 20-hr test, flwd 256 BO, no wtr and 440 MCF  
gas through 6/64" chk w/FTP not reported.  
1/6: SI for larger treater.

JAN - 6 1975



Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI for larger treater. (Reports  
discontinued until further activity.) JAN - 7 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. (RRD 1/7/75) Flowing. On various  
tests, flwd:

Rept Date	Hrs	BO	BW	MCF Gas	Chk	FTP
3/28:	21	1074	26	1260	10/64"	2750
3/29:	24	961	0	1099	10/64"	3250
3/30:	24	567	0	1260	10/64"	2500
3/31:	24	933	40	1327	10/64"	2150
4/1:	22	919	17	1209	10/64"	2500

APR 01 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. SI.

APR 02 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 24-hr test, flwd 850 BO,  
38 BW, 1173 MCF gas through 10/64" chk w/1600 psi FTP.

APR 03 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On 24-hr test, flwd 925  
BO, 24 BW, 1081 MCF gas through 12/64" chk w/1400 psi FTP.

APR 04 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,720. Flowing. On various tests, flwd:

Rept Date	Hrs	BO	BW	MCF Gas	Chk	FTP
4/5:	24	848	21	1081	12/64"	1300
4/6:	24	918	25	1238	14/64"	1150
4/7:	24	1011	34	1409	14/64"	1050

APR 07 1975

Shell-Murdock 1-26B5  
(CO, run new liner and  
RP&AT)

TD 13,880. PB 12,760. NEW LINER, RP&AT COMPLETE. Prior  
to work well averaged 24 BOPD & 4 BWPD during last producing  
month (3/73) from Wasatch 11,155-11,200. On 24-hr test  
well flwd 1011 BO, 34 BW & 1409 MCF gas @ 1050 FTP from  
Wasatch gross perfs 11,181-12,487. Recompletion date  
3/28/75. Test date 4/7/75.  
FINAL REPORT

APR 08 1975

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

<b>1. OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> 20100
<b>2. NAME OF OPERATOR</b> Shell Oil Company		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b>
<b>3. ADDRESS OF OPERATOR</b> P.O. Box 831 Houston, TX 77001 ATTN: P.G. GELLING RM. #6459 WCK		<b>7. UNIT AGREEMENT NAME</b>
<b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  1285' FNL + 1378' FEL SEC. 26		<b>8. FARM OR LEASE NAME</b> MURDOCK
<b>14. PERMIT NO.</b>		<b>9. WELL NO.</b> 1-26B5
<b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 6233' KB		<b>10. FIELD AND POOL, OR WILDCAT</b> ALTAMONT
<b>16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data</b>		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> APPROX. C NE 1/4 T2S R5W
<b>17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS</b> (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*		<b>12. COUNTY OR PARISH</b> DUCHESSNE
<b>18. I hereby certify that the foregoing is true and correct</b>		<b>13. STATE</b> Utah

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐

PULL OR ALTER CASING

☐

FRACTURE TREAT

☐

MULTIPLE COMPLETE

☐

SHOOT OR ACIDIZE

☒

ABANDON\*

☐

REPAIR WELL

☐

CHANGE PLANS

☐

(Other)

☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☐

REPAIRING WELL

☐

FRACTURE TREATMENT

☐

ALTERING CASING

☐

SHOOTING OR ACIDIZING

☐

ABANDONMENT\*

☐

(Other)

☐

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

SEE ATTACHED

18. I hereby certify that the foregoing is true and correct

SIGNED

W. F. NICKELDORE  
W. F. NICKELDORE

TITLE DIVISION PROD. ENGINEER

DATE

9/23/82

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

REMEDIAL PROGNOSIS  
MURDOCK 1-26B5  
SECTION 26, T2S, R5W  
ALTAMONT FIELD, UTAH

Pertinent Data:

Shell's Share: 100%

Elevation: 6245' KB  
KB-GL: 27'  
TD: 12,758'  
PBDT: 12,720'  
Casing: 13-3/8" 54.5# H-40 @ 1094'; 9-5/8" 40# & 47# S-95 @ 9498'  
Liner: 7-5/8" 33# S-95; Top @ 8729'; Bottom @ 11,155'  
Liner: 5" 18# N-80 SFJP; Top @ 10,940'; Bottom @ 12,758'  
Tubing: 2-7/8" EUE 6.5# N-80 to 10,068'  
Packer: 7-5/8" Baker fullbore @ 10,068'  
Perforations: 10,170'-11,095' (81 depths, 81 holes)  
11,111' (1 hole, shot to free stuck gun)  
11,274'-12,643' (95 depths, 285 holes)  
Artificial Lift: Gas mandrels with valves @ 2960'; 5090'; 6545'; 7480'; 8110'; 8740'; 9370'; 10,000'

Current Status: 66 BOPD, 309 BWPD, 237.0 MCF.

Objective: CO, reperforate and stimulate the Wasatch.

Procedure:

Note: Depth reference OWP is the GR/CBL dated 11/30/74.

1. MIRU. Load hole with clean produced water containing 5 gal/100 Tretolite X-cide 102 Biocide. Remove tree. Install and test BOP as per Attachment I.
2. Release 7-5/8" fullbore packer; pull production equipment.
3. RIH. Clean out 7-5/8" liner to top of 5" liner hanger at 10,940'±. POOH.
4. RIH with 4-1/8" mill or bit and scraper clean out to PBDT (12,720'±). Circulate hole clean and check for any large amounts of scale. Remove BOP's. Install 10,000 psi wp tree. Press test.
5. Rig up perforators with lubricator (tested to 3000 psi) and perforate as follows:
  - a. Perforate (from bottom up) 3 shots per foot at depths shown on Attachment II. Depth reference is OWP's GR/CBL dated 11/30/74.

- b. Perforate using a 3-1/8" OD casing gun with DNL Densi-Jet XIV (14.0 gram) charges at 120° phasing in the 5" liner. Note: In the 7-5/8" casing, use a 4" centralized casing carrier gun with 23 gram charges at 120° phasing.
  - c. Record pressure before and after each perforating run; note any changes.
6. RIH with 7-5/8" Baker Model "C" fullbore packer (or equivalent) with unloading sub on 2-7/8" tubing. Set packer at 10,150'±. (Note: If high pressure is encountered after perforating, lubricate in a Model "D" packer or equivalent and set at 10,150'±). If well will flow, continue flow until well dies which will also help clean up wellbore. Pressure test casing to 2500 psi. Press test tubing to 6500 psi.
7. Acid treat perforations 10,170' to 12,643' (366 old holes and 489 new holes) with 50,000 gallons of 7-1/2" HCl as follows:
- a. Pump 1000 gallons of 7-1/2% HCl to establish injection rate.
  - b. Pump 4000 gallons of 7-1/2% HCl, dropping one 7/8" NBS-431 or equivalent 1.3 S.G. ball sealer every 55 gallons.
  - c. Pump 1000 gallons of 7-1/2% HCl containing 1000# benzoic acid flakes (NDA-143 or equivalent).
  - d. Repeat Step (b) nine more times and Step (c) eight more times for a total of ten stages 7-1/2% HCl plus ball sealers and nine stages divert material and first 1000 gallons HCl to establish rate for a combined total 50,000 gallons of 7-1/2% HCl acid and 720 ball sealers.
  - e. Flush with 110 bbls. of clean produced water containing 5 gal/100 Tretolite X-cide 102 Biocide.

- Notes:
- (1) All acid and flush to contain 5 lb. NFR-44/1000 gallons HCl (or equivalent) for ±60% friction reduction and 1.0# 20-40 mesh RA sand per 1000 gallons (no RA sand in flush).
  - (2) All acid to contain three gallons NAI-167/1000 gallons HCl (or equivalent) for 4 hours exposure at 210°F and necessary surfactant, NNE-257N (or equivalent tested for compatibility with formation fluids) and 2 gallons NSI-372/1000 gallons HCl (or equivalent).
  - (3) Maintain 2500 psi surface casing pressure if possible; however, during acid treatment keep tubing-annulus differential at 6500 psi or less. Treat at maximum rates attainable within a limiting pressure of 10,000 psi.

- (4) Increase amount of diverting material if necessary to obtain a gradual increase in treating pressure and/or decrease in rate.
  - (5) Record ISIP and SIP for 5 minutes, 10 minutes, 15 minutes and 20 minutes.
8. Flow test until well dies. Remove x-mas tree. Install BOP 's. POOH with 7-5/8" fullbore packer and tubing.
  9. Run RA log from 12,650'± to 10,150'±.
  10. RIH with Baker 7-5/8" Model "D" packer or equivalent. Set at 10,065'±. Run tubing with gas lift mandrels spaced and pressure set (same as last design). See Attachment III. Remove BOP's and install x-mas tree.
  11. See Attachment IV for proposed status drawing.

Requested G.K. Rost 9-23-82 Approved \_\_\_\_\_

GKR:SJP  
9/23/82

Date \_\_\_\_\_



# WILZ RESEARCH LABORATORIES

P.O. Box 119

C. 101 DOW ROAD, Suite 84026

(801) 722-2254

LABORATORY NUMBER W-2460  
SAMPLE TAKEN \_\_\_\_\_  
SAMPLE RECEIVED 7-2-75  
RESULTS REPORTED \_\_\_\_\_

Sec. 26-28-5W

## SAMPLE DESCRIPTION

COMPANY Shell Oil Co. LEASE Murdock FIELD NO. \_\_\_\_\_  
FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ WELL NO. 1-26B5  
SAMPLE TAKEN FROM \_\_\_\_\_  
PRODUCING FORMATION Wasatch TOP \_\_\_\_\_  
REMARKS Production Log

SAMPLE TAKEN BY \_\_\_\_\_

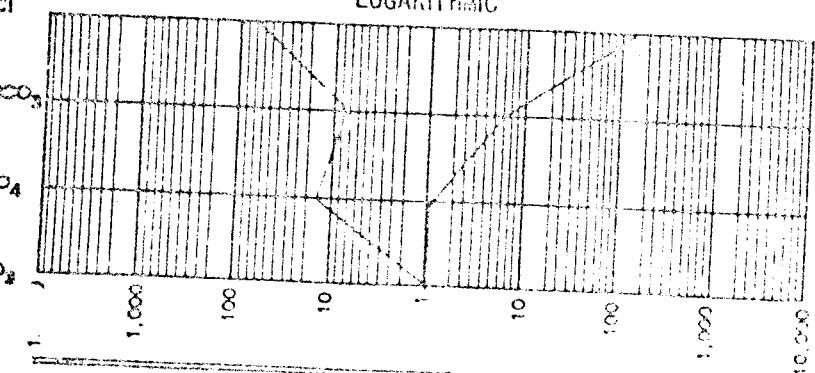
## CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0031 pH 7.90 RES. 1.00 OHM METERS @ 77° F  
TOT. L. HARDNESS 433.47 mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 508.0 mg/L as CaCO<sub>3</sub>

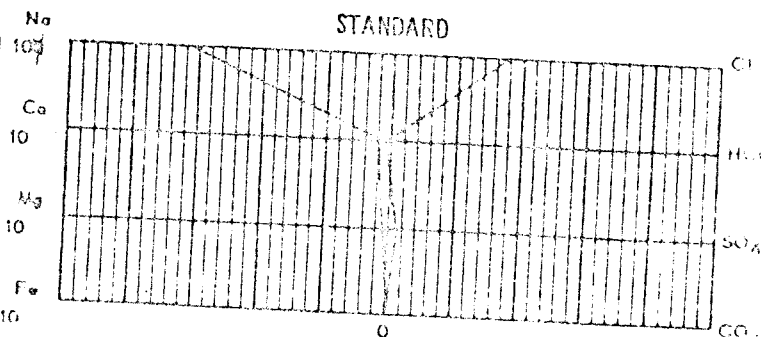
CONSTITUENT	MILLIGRAMS PER LITER mg/L	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca++	144.0	7.20		
MAGNESIUM - Mg++	16.6	1.36		
SODIUM - Na+	3600.0	156.52		
BARIUM (INCL. STRONTIUM) - Ba++	0	0		
TOTAL IRON - Fe+++ AND Fe++	3.09	0.11	165.19	
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	508.0	8.33		
CARBONATE - CO <sub>3</sub> <sup>-</sup>	0	0		
SULFATE - SO <sub>4</sub> <sup>-</sup>	816.0	17.0		
CHLORIDE - CL <sup>-</sup>	2798.9	78.84	104.17	
TOTAL DISSOLVED SOLIDS	7120			

MILLEQUIVALENTS PER LITER

LOGARITHMIC



STANDARD



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_

# Shell Oil Company



P.O. Box 831  
Houston, Texas 77001

December 30, 1983

Mr. Norm Stout  
State of Utah  
Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, UT 84114

Dear Mr. Stout:

TRANSFER OF OWNERSHIP AND ASSETS  
FROM SHELL OIL COMPANY TO  
SHELL WESTERN E&P INC.  
STATE OF UTAH

In accordance with our recent conversation, the purpose of this letter is to reduce to writing that Shell Western E&P Inc. ("SWEPI"), a subsidiary of Shell Oil Company, has been formed. Shell Western E&P Inc. is a Delaware corporation with its offices located at 200 North Dairy Ashford Road in Houston, Texas. The mailing address is P. O. Box 831, Houston, TX 77001.

Effective January 1, 1984, Shell Oil Company will transfer portions of its oil and gas operations to Shell Western E&P Inc. and Shell Western E&P Inc. will assume all of the rights, interests, obligations and duties which Shell Oil Company currently has as a result of its exploration, development and production operations in the State of Utah.

As you are aware, Shell Oil Company is currently the holder of various permits and agency authorizations. In view of the fact that Shell Western E&P Inc. will assume all of the liabilities and obligations of Shell Oil Company's exploration and production activities within the state, we respectfully request that you transfer all permits or other authorizations from Shell Oil Company to Shell Western E&P Inc., effective January 1, 1984.

To support this request, a copy of the power of attorney appointing the undersigned as Attorney-in-Fact for Shell Western E&P Inc. is enclosed. On behalf of Shell Western E&P Inc., enclosed are recently issued Bond No. Shell 1835 and Bond No. Shell 1841. The bonds were issued by the Insurance Company of North America. In the near future, I shall request that the existing Shell Oil Company bonds be released.

It is my understanding, pursuant to our prior discussion, that this letter will comply with your requirement regarding the change in the name of the permittee.

Sufficient copies of this letter are being provided to your office so that a copy can be placed in each appropriate file. A listing of active wells is enclosed. Thank you in advance for your cooperation in this matter.

Yours very truly,

*G. M. Jobe*

G. M. Jobe  
Administrator, Regulatory-Permits  
Rocky Mountain Division  
Western E&P Operations

GMJ:beb

Enclosures



RD 427805418  
RECEIVED

OCT 02 1984

## MONTHLY OIL AND GAS PRODUCTION REPORT

DIVISION OF OIL

GAS &amp; MINING

Operator name and address:

UTEX OIL CO.

% SHELL WESTERN E&amp;P INC.

PO BOX 576

HOUSTON

TX

77001

ATTN:

OIL ACCT.

Utah Account No. NO840

Report Period (Month/Year) 8 / 84

Amended Report ☐

Well Name	API Number	Entity	Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
BROTHERSON 1-03B4	4301330048	01525	02S 04W 3	WSTC	23	317	250	403
MURDOCK 1-26B5	4301330049	01530	02S 05W 26	GR-WS	28	1584	2747	6039
BROTHERSON 1-14B4	4301330051	01535	02S 04W 14	GR-WS	31	868	2489	3914
BROTHERSON 1-11B4	4301330052	01540	02S 04W 11	GR-WS	26	1593	3097	9080
CHRISTENSEN 1-33A5	4301330054	01545	01S 05W 33	GR-WS	31	858	70	1060
EVANS UNIT 1-31A4	4301330067	01560	01S 04W 31	GR-WS	31	2431	57	10702
BEEZARD 1-18B4	4301330059	01565	02S 04W 18	WSTC	23	568	581	3422
BROTHERSON 1-02B4	4301330062	01570	02S 04W 2	GR-WS	0	0	0	0
RUST 1-4B3	4301330063	01575	02S 03W 4	GR-WS	21	567	304	1178
OTE UNIT 1-36A4	4301330069	01580	01S 04W 36	WSTC	22	2753	3538	907
OTE UNIT 1-34A4	4301330075	01585	01S 04W 34	GR-WS	22	486	774	182
MUNSEN 1-21A3	4301330082	01590	01S 03W 21	GR-WS	24	646	7264	5926
BROADHEAD 1-21B6	4301330100	01595	02S 06W 21	WSTC	31	1442	1685	455
TOTAL						14112	17931	57128

JT - 2

Comments (attach separate sheet if necessary)

I have reviewed this report and certify the information to be accurate and complete.

Date

Sep 28, 1984

Telephone

801-484-2262

Authorized signature

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

MIT IN TRIPLICATE  
(Other instructions on  
reverse side)

010030A

### SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

<p>1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR ANR Limited Inc.</p> <p>3. ADDRESS OF OPERATOR P. O. Box 749, Denver, Colorado 80201-0749</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any requirements.* See also space 17 below.) At surface  See attached list</p> <p>14. PERMIT NO. 43-013-30049</p>	<p>5. LEASE DESIGNATION AND SERIAL NO.</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME Murdoch</p> <p>9. WELL NO. 1-26 B5</p> <p>10. FIELD AND POOL, OR WILDCAT</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 26, T. 5 N., R. 2 E., M. 5 W.</p> <p>12. COUNTY OR PARISH Wichita</p> <p>13. STATE</p>
---	--

RECEIVED  
DEC 31 1986

DIVISION OF  
OIL, GAS & MINING

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(Other) - Change Operator ☒ X

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

ANR Limited has been elected successor Operator to Utex Oil Company on the oil wells described on the attached Exhibit "A".

18. I hereby certify that the foregoing is true and correct

SIGNED <u>Don K. Nelson</u>	TITLE <u>Dist. Land Mgr.</u>	DATE <u>12/24/86</u>
-----------------------------	------------------------------	----------------------

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

UTAH  
NATURAL RESOURCE  
Oil, Gas & Mining355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut  
84180-1203. • (801-538-5340)Page 1 of 10

## MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

N0675

• ANR LIMITED INC./COASTAL  
P O BOX 749  
DENVER CO 80201 0749  
ATTN: RANDY WAHL

Utah Account No. N0235Report Period (Month/Year) 11 / 87Amended Report ☐

Well Name			Producing Zone	Days Oper	Production Volume		
API Number	Entity	Location			Oil (BBL)	Gas (MSCF)	Water (BBL)
BROTHERSON 1-3B4							
4301330048	01525 02S 04W 3		GRRV				
MURDOCK 1-26B5							
4301330049	01530 02S 05W 26		GR-WS				
MURDOCK #2-26B5							
4301331124	01531 02S 05W 26		WSTC				
BROTHERSON 1-14B4							
4301330051	01535 02S 04W 14		GR-WS				
BROTHERSON 1-11B4							
4301330052	01540 02S 04W 11		GR-WS				
BROTHERSON #2-11B4							
4301331078	01541 02S 04W 11		WSTC				
CHRISTENSEN 1-33A5							
4301330054	01545 01S 05W 33		GR-WS				
BLEAZARD 1-18B4							
4301330059	01565 02S 04W 18		WSTC				
BLEAZARD #2-18B4							
4301331025	01566 02S 04W 18		WSTC				
BROTHERSON 1-02B4							
4301330062	01570 02S 04W 2		GR-WS				
RUST 1-4B3							
4301330063	01575 02S 03W 4		GR-WS				
RUST #2-36A4							
4301331092	01577 01S 04W 36		WSTC				
UTE UNIT 1-36A4							
4301330069	01580 01S 04W 36		WSTC				
TOTAL							

Comments (attach separate sheet if necessary)

I have reviewed this report and certify the information to be accurate and complete.

Date

Authorized signature

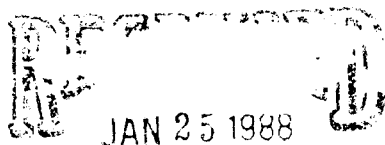
Telephone

PLEASE COMPLETE FORMS IN BLACK INK



**ANR Production Company**  
a subsidiary of The Coastal Corporation

612712



DIVISION OF  
OIL, GAS & MINING

January 19, 1988

Natural Resources  
Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Attention: Ms. Lisha Romero

This letter includes the information you requested on January 12, 1988 concerning the recent merger of ANR Limited, Inc. into ANR Production Company. Effective December 31, 1987 (December, 1987 Production), ANR Limited, Inc. merged into ANR Production Company; and henceforth, will continue operations as ANR Production Company.

ANR Production Company will begin reporting and remitting the Utah Conservation and Occupation Taxes effective December, 1987 production for leases previously reported by ANR Limited, Inc. (Utah Account No. N-7245). ANR Production Company will use the new Utah Account No. N-0675, as assigned by the State of Utah.

Please contact me at (713) 877-6167 if I can answer any questions on this matter.

Very truly yours,

*Roger W. Sparks*  
Roger W. Sparks  
Manager, Crude Revenue Accounting

*The computer shows the  
ANR Limited wells listed  
under account no. N0235.  
DTS  
1-26-88*

CC: AWS

CTE:mmw

Lisha,

*I don't see any problem w/this.  
I gave a copy to Arlene so  
she could check on the bond  
situation. She didn't think this  
would affect their bond as the  
bond is set up for Coastal  
and its subsidiaries (ANR, etc.)  
No Entity Number changes are  
necessary. DTS 1-26-88*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. Fee-20100
2. NAME OF OPERATOR ANR Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 749, Denver, Colorado 80201-0749		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1285' FNL & 1378' FEL		8. FARM OR LEASE NAME Murdock
		9. WELL NO. 1-26B5
		10. FIELD AND POOL, OR WILDCAT Altamont
		11. SEC., T., R., M., OR S.E. AND SUBST. OR AREA Section 26, T2S-R5W
14. PERMIT NO. 43-013-30049	15. ELEVATIONS (Show whether on, at, or off) 6203'	12. COUNTY OR PARISH Duchesne
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	(Other)	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		
PULL OR ALTER CASING	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	ABANDONMENT*	<input type="checkbox"/>
CHANGE PLANS	<input type="checkbox"/>		

(NOTE: Report results of multiple completion or Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Proposed Procedure:

1. MIRU. Kill well, install BOP. POOH w/production eqpt.
2. Clean out 7-5/8" csg to 10,170'. Set CIBP w/20' cmt @ 10,150'.
3. Perf Green River 8580-10,001' w/3 SPF using 4" csg gun per attached perf schedule.
4. TIH w/7-5/8" pkr to  $\pm$  8450' on 3-1/2" tbg while testing tbg on TIH.
5. Acidize well w/9000 gals 15% HCL + add.
6. Swab & flow back well until PH is greater than or equal to 5.5.
7. Re-run production eqpt & return well to production.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Eileen Danner Day*

TITLE Regulatory Analyst

DATE May 22, 1989

(This space for Federal or State office use)

APPROVED BY

COMM. OF APPROVAL IF ANY:

TITLE

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 6-2-89

*John R. Dyer*


\*See Instructions on Reverse Side

Perforation Schedule  
 Murdock #1-26B5  
 NW/NE Section 26, T2S-R5W  
 Duchesne County, Utah

Reference Log: Schlumberger Sidewall Neutron Porosity Log dated 10-30-70 and 3-12-71.

8580	8823	9101	9401	9899
87	62	16	37	
	85	33	71	9906
		47	94	13
8601		67		
08	8918	76	9557	10,001
18	57	84		
23	65			
28	84		9635	
40		9251		
70	9027	86	9737	
93	34	93	86	
	39		98	
8746	58	9332		
64	63	72		
77		94		
94				

Totals: 52 zones, 3 JSPF

  
 Wendell Cole  
 May 3, 1989

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		3. LEASE DESIGNATION & SERIAL NO. Fee - 20100	
2. NAME OF OPERATOR ANR Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR P. O. Box 749, Denver, Colorado 80201-0749		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1285' FNL & 1378' FEL At proposed prod. zone Same as above		8. FARM OR LEASE NAME Murdock	
14. API NO. 43-013-30049		9. WELL NO. 1-26B5	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6203' GL		10. FIELD AND POOL, OR WILDCAT Altamont	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 26, T2S-R5W	
		12. COUNTY Duchesne	13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐

PULL OR ALTER CASING ☐

WATER SHUT-OFF ☐

REPAIRING WELL ☐

FRACTURE TREAT ☐

MULTIPLE COMPLETE ☐

FRACTURE TREATMENT ☐

ALTERING CASING ☐

SHOOT OR ACIDIZE ☐

ABANDON ☐

SHOOTING OR ACIDIZING ☐

ABANDONMENT\* ☐

REPAIR WELL ☐

CHANGE PLANS ☒

(Other)

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

(Other) Recomplete to Green River

APPROX. DATE WORK WILL START 7/14/90

DATE OF COMPLETION

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

\* Must be accompanied by a cement verification report.

Proposed Recompletion Procedure:

- 1) MIRU. Kill well, install BOP. POOH w/production equipment.
- 2) CO 7-5/8" csg. to 10,170', set CIBP w/20' cmt. @ 10,150'.
- 3) Perf Lower Green River w/3 JSPF per attached perforation schedule (8580'-10,001')
- 4) TIH w/7-5/8" pkr. to  $\pm$  3450' on 3-1/2" tbg. while testing tbg. on TIH. Acidize well w/9000 gals. 15% HCL + additives. Swab and flow back well until ph is greater than or equal to 5.5.
- 5) Re-run production equipment and return well to production.

18. I hereby certify that the foregoing is true and correct

SIGNED Eileen Danni Dey

TITLE Regulatory Analyst

DATE May 30, 1990

(This space for Federal or State office use)

APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING


See Instructions On Reverse Side

Perforation Schedule  
Murdock #1-26B5  
NW/NE Section 26, T2S-R5W  
Duchesne County, Utah

Reference Log: Schlumberger Sidewall Neutron Porosity Log dated 10-30-70 and 3-12-71.

8580	8823	9101	9401	9899
87	62	16	37	
	85	33	71	9906
8601		47	94	13
08	8918	67		
18	57	76	9557	10,001
23	65	84		
28	84		9635	
40		9251		
70	9027	86	9737	
93	34	93	86	
	39		98	
8746	58	9332		
64	63	72		
77		94		
94				

Totals: 52 zones, 3 JSPF

  
Wendell Cole  
May 3, 1989



MURDOCK 1-26B5  
SECTION 26, T2S, R5W  
Altamont Field  
Duchesne County, Utah.

13<sup>3</sup>/<sub>8</sub>" 54.5# H-40  
set @ 1094'

Top of 7<sup>5</sup>/<sub>8</sub>" @ 8729'  
9<sup>5</sup>/<sub>8</sub>" 40#47# S-95  
@ 9598'

Top of 5" @ 10940  
1<sup>7</sup>/<sub>8</sub>" 33.7# S-95  
set @ 11,155'

2<sup>7</sup>/<sub>8</sub>" 6.5# N-80  
EUE 8 RD @ 10805'

Washed Perfs  
10,170 - 12,643'

5" 18# N-80  
set @ 12758'

PBTD - 12,670'  
TD - 12,758'

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

OCT 22 1990

RECEIVED

DIVISION OF

5. LEASE DESIGNATION AND SERIAL NO.

Fee-20100

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME

Murdock

9. WELL NO.

1-26B5

10. FIELD AND POOL, OR WILDCAT

Altamont

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 26, T2S-R5W

## WELL COMPLETION OR RECOMPLETION REPORT AND LOGGING

1a. TYPE OF WELL:

OIL WELL ☒GAS WELL ☐DRY ☐Other ☐

b. TYPE OF COMPLETION:

NEW WELL ☐WORK OVER ☐DEEP-EN ☐PLUG BACK ☐DIFF. RESVR. ☒Other ☐

2. NAME OF OPERATOR

ANR Production Company

3. ADDRESS OF OPERATOR

P. O. Box 749, Denver, Colorado 80201-0749 (303) 573-4476

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface

1285' FNL &amp; 1378' FEL

At top prod. interval reported below

Same as above

At total depth Same as above

14. API NO.

43-013-30049

DATE ISSUED

8/24/70

12. COUNTY

Duchesne

13. STATE

Utah

15. DATE SPUDDED

9-1-70

16. DATE T.D. REACHED

4-2-71

17. DATE COMPL. (Ready to prod.)

9/29/90 (Plug &amp; Abd.)

18. ELEVATIONS (DF, BKB, RT, CR, ETC.)

6218' GL

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

12758'

21. PLUG BACK T.D., MD &amp; TVD

12670'

22. IF MULTIPLE COMPL. HOW MANY

23. INTERVALS DRILLED BY

ROTARY TOOLS

0-TD

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)

8580-10,001' Green River

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

27

WAS WELL CORED YES ☐ NO ☒ (Subject analysis)  
DRILL STEM TEST YES ☐ NO ☒ (See reverse side)

## -8- CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT POLLED
13-3/8"	54.5#	1094'	17-1/2"	900 SX	
9-5/8"	40#, 47#	9598'	12-1/4"	350 SX	

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
7-5/8"	8,729'	11,155'	325		2-7/8"	10,805'	
5"	10,940'	12,758'					

## 31. PERFORATION RECORD (Interval, size and number)

8580-10,001' w/3 SPF 156 total holes

## 32. ACID, SHOT, FRACTURE CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

## 33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)					WELL STATUS (Producing or shut-in)	
9/29/90		Pumping					SI	
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO	
10/1/90	24	N/A	→	9	28	543	3,000	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)		
N/A	N/A	→	9	28	543			

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

M. Bozarth

LIST OF ATTACHMENTS

Chronological Report

35. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Eileen Danni Dev

Regulatory Analyst

DATE October 16, 1990

See Spaces for Additional Data on Reverse Side

THE COASTAL CORPORATION  
PRODUCTION REPORT

CHRONOLOGICAL HISTORY

Page 1

MURDOCK #1-26B5 (RECOMPLETE TO GREEN RIVER)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH  
WI: 75.000% ANR AFE: 63175 REV. 1  
TD: 12,758' PBTD: 12,670'  
CSG: 5" LINER @ 10,940'-12,758'  
PERFS: 10,170'-12,643'  
CWC(M\$): \$75.1

9/24/90 POOH w/tbg. MIRU. POOH w/rods. Start POOH w/tbg.  
DC: \$3,456 TC: \$3,456

9/25/90 POOH w/tbg. RIH w/7-5/8" csg scraper to 10,170'.  
DC: \$1,784 TC: \$5,240

9/26/90 Prep to RIH w/trtg pkr. RIH w/7-5/8" CIBP on WL & set @ 10,160'. Dump 2  
sxs cmt on CIBP. Perf Green River fm from 8580' to 10,001', 3 SPF, 156 tot  
holes. 0 psi.  
DC: \$15,630 TC: \$20,870

9/27/90 Prep to run prod equip. SITP 450 psi. Flwd 100 B0 to tank. Well died.  
Circ hole w/prod wtr. Well started flwg again. Connect to trtr for night.  
DC: \$2,702 TC: \$23,572

9/28/90 Return well to prod. Kill well w/10# brine. Set TAC @ 8789'. RIH  
w/modified 86 rod design. (Noted: PPD acid stim.)  
DC: \$7,326 TC: \$30,898

9/29/90 Pmpd 139 B0, 250 BW, 4 MCF/26 hrs (down 9 hrs - salt wtr pump).

9/30/90 Pmpd 6 B0, 411 BW, 13 MCF/20 hrs (down 4 hrs - high saltwater).

10/1/90 Pmpd 9 B0, 543 BW, 28 MCF.  
DC: \$4,749 TC: \$35,647

10/2/90 Pmpd 11 B0, 543 BW, 35 MCF.

10/3/90 Pmpd 1 B0, 534 BW, 35 MCF.

10/4/90 Pmpd 0 B0, 555 BW, 32 MCF.

10/5/90 Pmpd 0 B0, 598 BW, 24 MCF.

Before on rod pmp avg'd: 10 BOPD, 177 BWP, 13 MCFPD. Final report.

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

### SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION & SERIAL NO. Fee 20100	
2. NAME OF OPERATOR ANR Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR P. O. Box 749, Denver, Colorado 80201-0749 (303) 573-4476		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1285' FNL & 1378' FEL At proposed prod. zone Same as above		8. FARM OR LEASE NAME Murdock	
14. API NO. 43-013-30049		9. WELL NO. 1-26B5	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6218' GL		10. FIELD AND POOL, OR WILDCAT Altamont	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 26, T2S-R5W	
		12. COUNTY Duchesne	13. STATE Utah

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>

(Other) \_\_\_\_\_  
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START 12/15/90

DATE OF COMPLETION \_\_\_\_\_

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PROPOSED PROCEDURE:

\* Must be accompanied by a cement verification report.

- 1) MIRU. Service rig. Kill well. NU BOPE, POOH & LD rods. POOH w/tbg. & prod. eqpt.
- 2) Spot 117 sx. cmt. plug from  $\pm$  8530' to  $\pm$  8929'.
- 3) RIH w/2-7/8" tbg. & 9-5/8" cmt. retainer and set @  $\pm$  8390'. Pump 50 sx. C1 "G" cmt. below retainer and spot 75 sx. C1 "G" cmt. on top of retainer (8190-8390').
- 4) Press test 13-3/8" x 9-5/8" annulus. Fill w/cmt. if necessary.
- 5) Spot 50 sx. C1 "G" cmt plug from surface to 200' (approximately 74 sx.)
- 6) Cut 9-5/8" csg. off. Weld on plate. Install dry hole marker. Reclaim surface per Utah DOGM specifications.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Eileen Danni Dev*

TITLE Regulatory Analyst

DATE

October 29, 1990

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS AND MINING**

6. Lease Designation and Serial Number

Fee 20100

7. Indian Allottee or Tribe Name

N/A

8. Unit or Communitization Agreement

N/A

9. Well Name and Number

Murdock #1-26B5

10. API Well Number

43-013-30049

11. Field and Pool, or Wildcat

Altamont

1. Type of Well

☒ Oil Well    ☐ Gas Well    ☐ Other (specify)

2. Name of Operator

ANR Production Company

3. Address of Operator

P. O. Box 749, Denver, Colorado 80201-0749

4. Telephone Number

(303) 573-4476

5. Location of Well

Footage : 1285' FNL & 1378' FEL  
Q.Q. Sec. T., R., M. : Section 26, T2S-R5W

County : Duchesne

State : UTAH

## 12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT  
(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Approximate Date Work Will Start \_\_\_\_\_

SUBSEQUENT REPORT  
(Submit Original Form Only)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Abandonment  | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Date of Work Completion 4/19/91

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see the attached chronological report for the P&A procedure performed on the above-referenced well.

(Also please see attached cement verification report.)

**RECEIVED**

MAY 16 1991

DIVISION OF  
OIL GAS & MINING

4. I hereby certify that the foregoing is true and correct

Name &amp; Signature

State Use Only)

Title Regulatory Analyst Date 5/9/91

THE COASTAL CORPORATION  
PRODUCTION REPORT

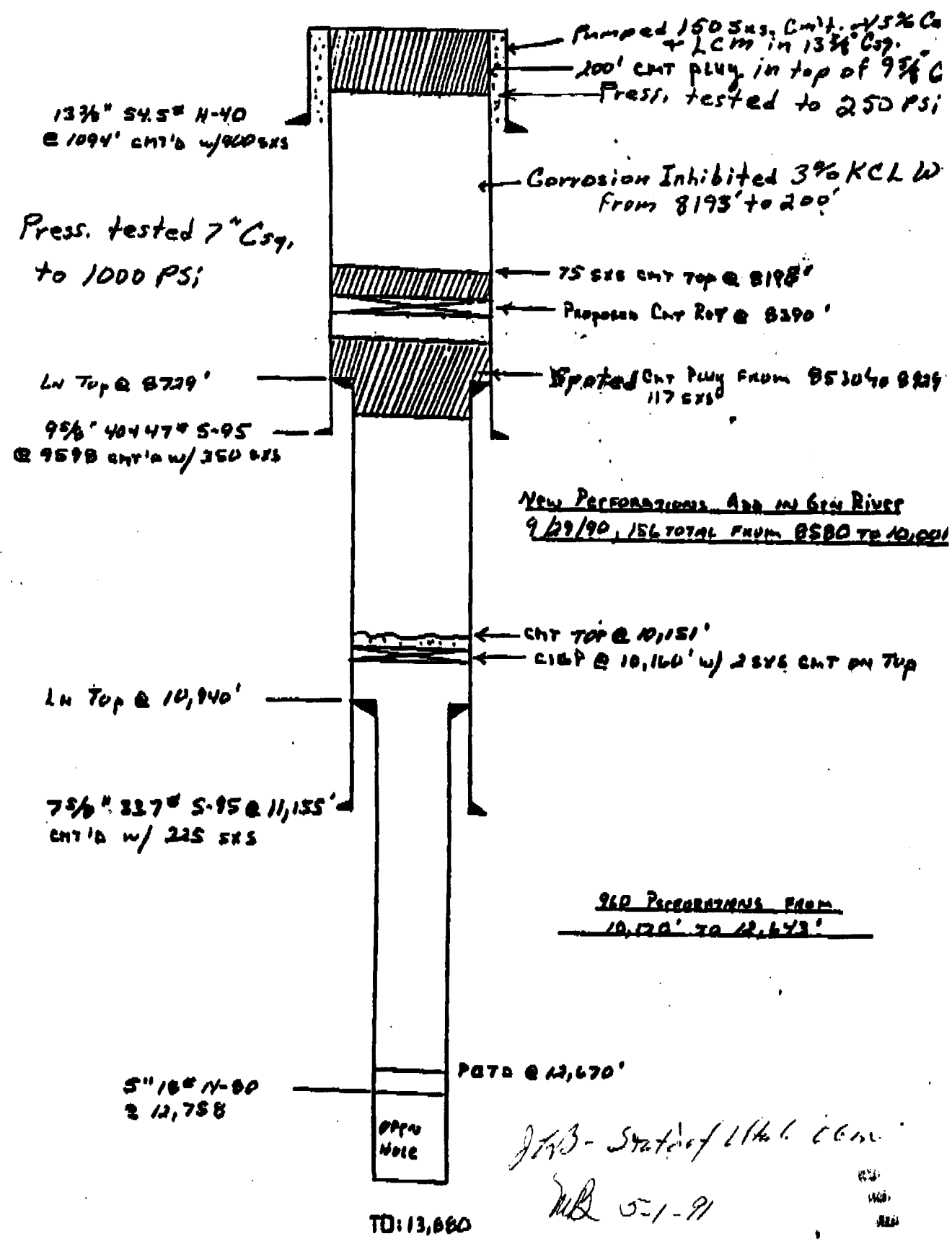
CHRONOLOGICAL HISTORY

Page 2

MURDOCK #1-26B5 (P&A)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH  
WI: 75.0000% ANR AFE: 63332  
TD: 13,880' PBD: 12,670'  
5" LINER @ 10,940'-12,758'  
PERFS: 10,170'-12,643' (WASATCH)  
CWC(M\$): \$49.7

- 4/16/91 POOH w/rod pump BHA. MIRU. LD HH. POOH w/86 tapered rod string and pump. ND WH, NU BOP.  
DC: \$4,847 TC: \$4,847
- 4/17/91 POOH w/tbg. POOH w/rod pump BHA. Spotted 117 sxs Class "G" cmt from 8530' to 8925'. Reverse out. POOH to 1874'.  
DC: \$2,326 TC: \$7,173
- 4/18/91 POOH w/tbg. POOH. RIH w/CICR and set @ 8390'. RIH w/stinger. Pump 50 sxs Class "G" down 13-3/8" x 9-5/8" csg. Spot 75 sxs Class "G" cmt to 8193'.  
DC: \$6,522 TC: \$13,695
- 4/19/91 Pressure test 13-3/8" csg. Would not hold. Spot 100 sxs cement in 9-5/8" csg from 200' to surface. Pump 100 sxs cmt down 13-3/8" csg. Pressure test to 200 psi. Held. ND WH and weld marker. Final report.  
DC: \$19,173 TC: \$32,868

P4A Wellbore Schematic  
MURDOCK #1-2685  
SECTION 26, T2S, R5W





DUPLICATE  
INVOICE

# The Western Company of North America

P.O. BOX 94480 TULSA, OKLAHOMA 74194  
(713) 629-2600

TO COASTAL OIL & GAS  
P.O. BOX 120  
ALTAMONT, UT 84001

TERMS  
NET CASH DUE ON OR  
BEFORE 30 DAYS  
AFTER DATE OF INVOICE

FEDERAL I.D. NO. C 75-0763484

INVOICE NO.  
373078

PLEASE DISREGARD THIS INFORMATION						
18463	15	35	43	2	30	9

DATE			OUR RECEIPT NO.	SERVICES FROM OUR STATION AT	OUR ENGINEER	SIGNED FOR YOU BY			
MO.	DAY	YR.							
04	17	91	169373	VERNAL CEMENTING	KRUGER	BOZARTH			
FOR SERVICING WELL NAME				COUNTY	STATE	YOUR ORDER NO.			
1-2685				DUCHESNE	UT				
UNITS	CODE	DEPTH AND DESCRIPTION			UNIT PRICE	AMOUNT			
1.0	F0546	CEMTNG DP/TB, 1ST 8 HRS, 1001-1500'			1279.000	1,279.00			
1.0	F0686	CEMTNG DP/TB, 1ST 8 HRS, 8001-8500'			2864.000	2,864.00			
1.0	F0696	CEMTNG DP/TB, 1ST 8 HRS, 8501-9000'			3052.000	3,052.00			
65.0	K1006	MILEAGE CHARGE, PER UNIT, PER MILE			2.550	165.75			
65.0	K1026	MILEAGE AUTO/PICK-UP/TREATING VAN			.920	59.80			
65.0	K1026	MILEAGE AUTO/PICK-UP/TREATING VAN			.920	59.80			
65.0	K1026	MILEAGE AUTO/PICK-UP/TREATING VAN			.920	59.80			
445.0	M1006	LAND JOBS			1.200	534.00 *			
1358.5	M2306	DELIVERY CHARGE PER TON MILE			.810	1,100.39 *			
320.0	P0530	CALCIUM CHLORIDE-UTAH, LB			.380	121.60 *			
280.0	P1796	HI-SEAL 2, PER LB			.810	226.80 *			
445.0	P433L	PREMIUM CEMENT, VERNAL, UT.			9.650	4,294.25 *			
SUB TOTAL						13,817.19			
90200 SALES CONCESSION ON SERVICES						2,901.61-			
96326 DUCHESNE COUNTY 1.000%						49.58			
96900 UTAH SALES & USE TAX 5%						247.94			
PAY THIS AMOUNT						11,213.10			



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
DRILLING AND WELL PLUGGING INSPECTION FORM

COMPANY: ANR PRODUCTION COMPANY

WELL NAME: MURDOCK 1-26 B5 API NO: 43-013-30049

SECTION: 26 TWP 2 S RANGE: 5 W

INSPECTOR: HEBERTSON TIME: 1:00 DATE: 4/17/91

REPRESENTATIVE: MARVIN BOZARTH PUSHER: HAROLD CUNDALL

OPERATIONS: PLUG AND ABANDON PLACE CEMENT PLUGS

SPUD DATE: \_\_\_\_\_ DEPTH: 8,929'

DRILLING AND COMPLETIONS:

_____ APD	_____ WELL SIGN	_____ SANITATION
_____ BOPE	_____ BLOOIE LINE	_____ H2S
_____ VENTED/FLARED	_____ RESERVE PIT	_____ FLARE PIT
_____ BURN PIT	_____ HOUSEKEEPING	

PLUGGING AND ABANDONMENTS:

PLUG TYPE	INTERVAL
<u>BALANCED PLUG OF 117 SX G</u>	<u>8,530-8,929' 4/17/91</u>
<u>WIRE LINE CEMENT RETAINER</u>	<u>8,390' 4/18/91</u>
<u>RETAINER PLUG 75 SX</u>	<u>8,190-8,390' 4/18/91</u>
<u>SURFACE PLUG 75 SX</u>	<u>0-200, 4/19/91</u>
<u>ANNULUS PLUG 150 SX</u>	<u>4/19/91</u>

PLUGS TESTED: Y HOW PRESSURE WOC \_\_\_\_\_

TYPE OF MARKER: Y BURIED PLATE \_\_\_\_\_ SURFACE

RECLAMATION:

\_\_\_\_\_ CONTOUR \_\_\_\_\_ RIP \_\_\_\_\_ REHABILITATION

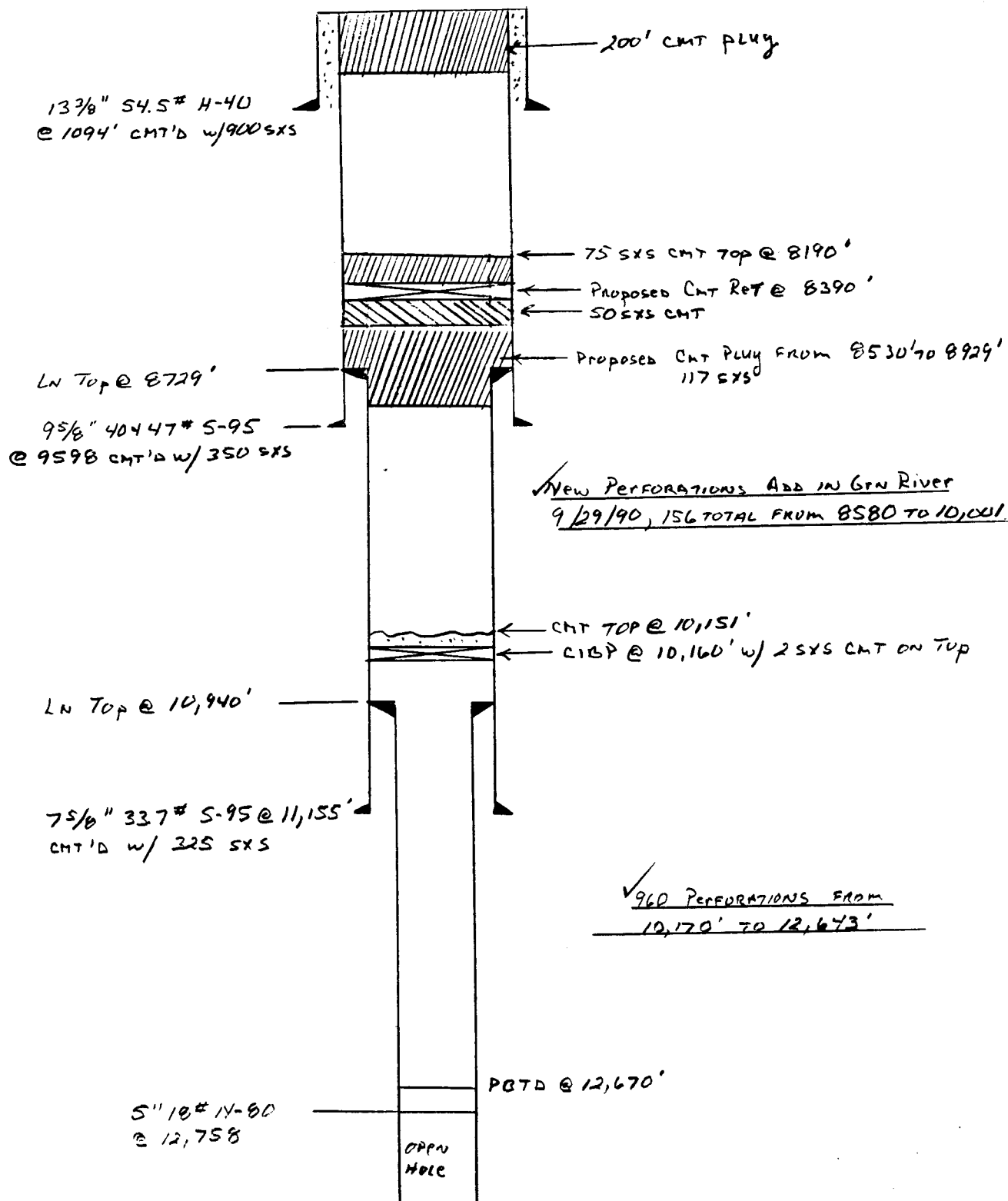
LEGEND: (Y)=YES (P)=PROBLEM (U)=UNKNOWN (BLANK)=NOT APPLICABLE

REMARKS:

RETAINER WAS SET BY WIRELINE, AND COULD NOT PUMP BELOW IT. 13 3/8  
ANNULUS WAS CEMENTED WITH 150 SX G WITH BRIDGING AGENT AND TESTED  
TO 200 #. WILL REMOVE EQUIPMENT AND REHAB.

S.C. Prutch  
10/12/90

P4A Wellbore Schematic  
MURDOCK #1-2635  
Section 26, T2S, R5W



TD: 13,880